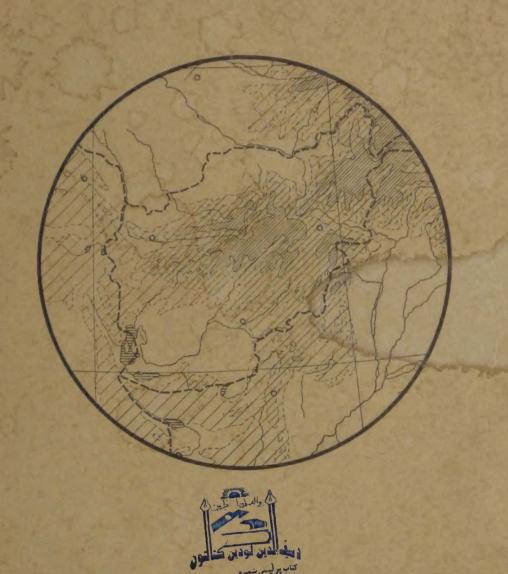
KNUD PALUDAN

ON THE BIRDS OF AFGHANISTAN



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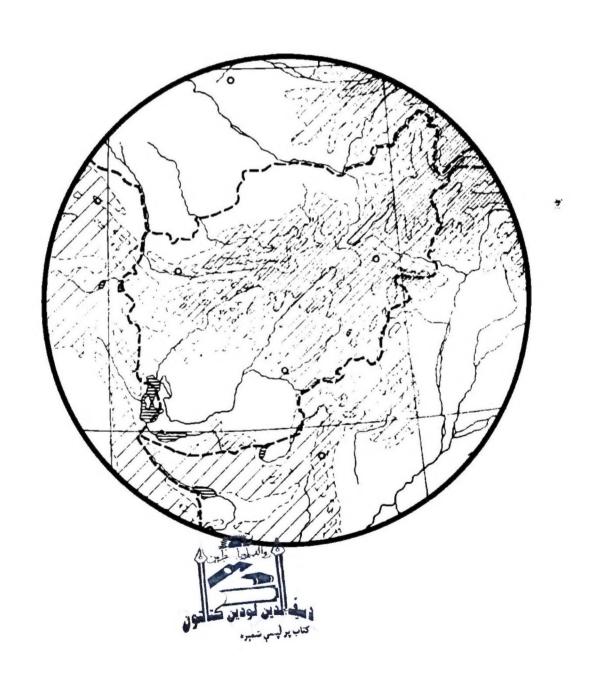
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KNUD PALUDAN

ON THE BIRDS OF AFGHANISTAN



Redaktionen af dette bind er besørget af afdelingsleder ved Zoologisk museum, dr. phil. H. Volsøe

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Trykningen af dette bind er bekostet af Carlsbergfondet.

Knud Paludan

ON THE BIRDS OF AFGHANISTAN

This paper is dedicated to ERWIN STRESEMANN

on the occasion of his seventieth birthday

THE 3rd DANISH EXPEDITION TO CENTRAL ASIA Zoological Results 25

ON THE BIRDS OF AFGHANISTAN

By KNUD PALUDAN

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I. Introduction

THE FIRST two of the Danish Expeditions to Central Asia took place in 1936-37 and in 1938-39. Their purpose was to carry out ethnographic and linguistic studies in Mongolia. The leader of these expeditions was Mr. H. HASLUND-CHRISTENSEN who, during the confinement imposed upon him by World War II, developed large scale plans for a third expedition which was to form a link between the collecting done in Mongolia and

in the autumn of 1947 to commence work in Afghanistan. During the following spring another party of four arrived in Afghanistan among whom the entomologist, magister N. Haarløv. The taxidermist, Mr. Hans Madsen, who was going to assist me arrived in 1949 when I had taken over part of the administration of the Expedition.

In the autumn of 1948 the Expedition suffered the sad and irreplaceable loss of its leader, Mr. Haslund-Christensen who died in Kabul on September 13. The activity already in progress was continued and wound up by the parties of the Expedition, and another party was even sent out in 1950 under the leadership of Dr. Krebs in order to carry out geological and geographical research in Northern India and Kashmir. For various reasons this brought the Expedition to an end. First and foremost it was now without its leader who had taken the initiative and conducted the large scale enterprise, and in addition the political events developed quite differently from what had been foreseen when the plans were made, hence it would have been impossible to carry through the Expedition according to the original plan.

During our activity in Afghanistan we enjoyed the favour of the Afghan authorities who helped us in every possible way. In particular the University of Kabul, represented by Professor, Dr. Mohammad Anas, did everything to facilitate our work. For all support received and for all sympathy shown to us, especially during our difficult time in the autumn of 1948, I express my cordial thanks to all Afghan authorities.

In modern zoogeographical studies the need for a rich comparative material from adjacent regions is required to such an extent that satisfactory research tends to become possible only in a few of the largest museums except when more local problems are considered which normally form part of the sphere of activity of the small museums. That such difficulties were often encountered in the present work will be noticeable in the systematic section of this paper. When, after all, it has become possible

from earlier collecting in Afghanistan, and discussion of tricky identifications. For all such help I am grateful to Dr. B. Biswas (Indian Museum), Mr. I. J. Ferguson-Lees, Mr. I. C. Fraser (British Museum), Dr. Hans Johansen (Zoological Museum, Copenhagen), Mr. I. D. Macdonald, B. Sc. (British Museum), Mr. D. Marien (American Museum), Colonel R. Meinertzhagen, Dr. Melvin A. Traylor (Chicago Museum), Dr. Finn Salomonsen (Zoological Museum, Copenhagen), Mr. R. W. Sims, B. Sc. (British Museum), and Mr. Kenneth Williamson.

My thanks are also due to Dr. C. OVERGAARD NIELSEN for the translation of the paper—with the exception of chapter IV—and to Mrs. Agnete Volsøe who assisted in translating part of chapter IV.

I am in deep gratitude to the foundations Carlsberg Fondet, Carlsen-Langes Legatstiftelse and Rask-Ørsted Fondet for having financially supported the working up of the material, the translation and printing of the paper.

The spelling of place names is a great problem when dealing with a country such as Afghanistan since the names are transcribed differently in the West European languages, even sometimes in the same language. I have preferred to use the forms employed on the relevant sheets of the map of Asia (1:1,000,000) published by the War Office, London. The only exceptions are a few cases where mistakes or printing errors are obvious. Throughout this paper Turkestan means Soviet Turkestan while Chinese Turkestan is called Sinkiang.

II. On the history of Afghan ornithology

The exploration of the Afghan bird fauna commenced in the previous century as a direct result of the Afghan-British wars. During the hostilities and the subsequent rectification of frontiers several British officers with an interest in ornithology entered the country. Thus the history of Afghan ornithology in the nineteenth century distinctly reflects the political development

der to Russia. The Emir of Kabul, Dost Muhammad, considered the rising power of the Sikhs the more serious threat while to the British the impending Persian conquest of Herat and Kandahar and, implicitly, the expansion of Russian influence meant a threat to the Indian frontier. These conflicting interests and mutual misinterpretation of intentions and attitudes led to the First Afghan War, 1838–42.

Attacking from Baluchistan the British army reached Kandahar towards the end of April 1839 while the entry of the troops into Kabul followed in August when the town surrendered without fight. With the army was the British army surgeon and botanist William Griffith who did the first scientific collecting in Afghanistan.

During the period from August 24 to September 17, 1839 he travelled from Kabul (Fig. 1) through the Maidan Valley, across Unaï Kotal to the river Helmand. Crossing Koh-i-Baba he proceeded to Bamian through Hajigak Kotal. On his journey back he crossed Koh-i-Baba through Irak Kotal, otherwise he followed the earlier route. In October he left Kabul for Peshawar.

Early in January 1840 Griffith returned to present-day Afghanistan travelling up the lower Kunar Valley to a short distance above Chigha Sarai.

In June 1840 he was back in Kabul again and between July 17 and September he made another journey to Bamian along the same route. During this trip he also visited Aq Ribat. In October he left the country and went to Peshawar.

His comprehensive diary was published posthumously:

WILLIAM GRIFFITH: Journals and travels in Assam, Burma, Bootan, Afghanistan and the neighbouring countries. -xxxii + 529 pp. Calcutta 1847.

This work contains botanical observations in particular, whereas the ornithological notes are rather sparse and sometimes difficult to identify. According to his own statement he collected about 350 specimens of birds in Afghanistan but he gives no list of them. However, the birds became

missariat Department" of this army which must have had its headquarters in Kandahar where he spent his modest spare time studying the bird fauna.

THOS. HUTTON: Rough notes on the ornithology of Candahar and its neighbourhood. (With some additional information on the birds of Afghanistan. – By E. BLYTH). – Jour. Asiatic Soc. Bengal 16: 775–794 (1847).

The paper gives no description or definition of the district studied, nor does it mention the period of time during which the observations were made but from the text on the individual species it appears that Hutton was in Kandahar in February of 1840 and of 1841.

In the notes supplied by BLYTH reference is made to some observations made in Kabul by ALEXANDER BURNES. In the year 1832 he travelled in Afghanistan along the route Jalalabad-Kabul-Bamian-Balkh whence he proceeded to Bukhara and Persia (*Travels into Bukhara; being the account of a journey from India to Cabool, Tatary, and Persia.*—Vol. I-III. London 1834). On account of his knowledge of the country he was sent on a Commercial Mission to Kabul in 1837. He did not arrive until the autumn of 1837, and he stayed until April 1838. It would seem that the drawings of local birds made by an Afghan artist on his initiative date from this stay. Subsequently the drawings and a few skins were given to the Asiatic Society of Bengal where they were examined by BLYTH who mentions them in his notes. During the war Burnes returned to Kabul but was killed during the riots in November 1841.

In the year 1873 the British Government sent a mission with letters and presents to the newly appointed Atalik, or King of Yarkand and Kashgar. FERDINAND STOLICZKA was attached to the mission as a naturalist. The mission also counted Captain John Biddulph as a member. He, too, collected birds which together with his notes were used in the work mentioned below. The journey started from Srinagar on August 5 and went by Leh and the Sanju Pass to Yarkand and Kashgar. The journey back commenced in the spring of 1874. In early April one party of the mission, among whom Stoliczka and Biddulph, left Aktash and travelled west into Wakhan, the northeast province of Afghanistan and down along the

Travelling through Wakhan the party collected and observed 56 species which received attention in:

R. Bowdler Sharpe: Scientific results of the Second Yarkand Mission, based upon collections of the late Ferdinand Stoliczka. Aves. – XVII + 153 pp. London 1891.

A few decades after the First Afghan War the situation became critical again. In the thirties the British were apprehensive of Russian influence through Persia. During the sixties, however, the threat came from the north following the Russian penetration through later Russian Turkestan. In 1869 the ruler of Bukhara was forced to acknowledge Russian suzerainty, and thus Russian influence reached the northern frontier of Afghanistan. This caused alarm in Afghanistan as well as among the British in India but in spite of the common interest an agreement on joint Afghano-British measures was not reached. The fact that, in 1878, a Russian mission was received in Kabul while a British mission was not allowed into the country led to the Second Afghan War (1878–81).

In November 1878 the British launched an attack along three routes, through the Khyber Pass, through the Kurram Valley, and from Quetta towards Kandahar. With the latter detachment was St. John, a political officer, who remained quartered in Kandahar through $2^1/2$ years until the troops were finally evacuated in April 1881. He found good opportunities for watching the breeding birds as well as the bird migration through his territory from Girishk in the west to Kalat-i-Ghilzai in the north east. One of Hume's experienced bird-skinners was with him and a fairly large collection had already been brought together when, in the autumn of 1879, the skinner and the collection was sent back to India. In the early part of the year there had been signs that hostilities could be brought to a stop but the situation grew worse and reached a critical point in the defeat of the British at Maiwand between Girishk and Kandahar on July 27, 1880. During the battle St. John lost all his valuable notes and part of the collection; this, however, did not prevent him from contributing the best

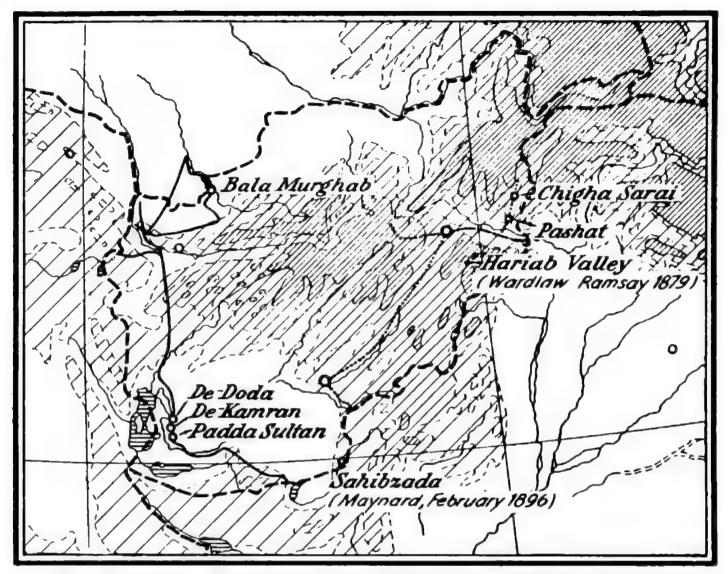


Fig. 1. The broken line indicates WILLIAM GRIFFITH's routes (1838-39), the solid line J. E. T. AITCHISON'S (1884-85).

confined to wintering birds and early spring migrants. The material was published already in the following year in:

C. SWINHOE: On the birds of Southern Afghanistan. - Ibis 1882: 95-126.

The detachment moving through the Kurram Valley captured Peiwar Kotal on Dec. 1, 1878 and next occupied the Hariab Valley.

Apart from making various reconnaissance expeditions the detachment awaited the issue of negotiations taking place in Kabul. At the outbreak of new hostilities the march continued towards Kabul in September. During the quiet period from April to June 1879 R. G. WARDLAW-RAMSAY served in the army in the Hariab Valley (Fig. 1) where he had an oppor-

The material brought together by St. John, Swinhoe and Wardlaw-Ramsay is now in the British Museum, London.

The Russian advance in Turkestan led to the annexation of Mery in 1884 whereby the northern frontier of Afghanistan was exposed to acute danger again. A mixed commission was appointed to define this frontier. The British members of the Afghan Delimitation Commission (1884-86) left Quetta on 21 September, 1884. The botanist J. E. T. AITCHISON acted as naturalist to the Commission. His travelling route (Fig. 1) took him through northern Baluchistan, continuing through southern Afghanistan he reached the river Helmand at Khwaja Ali on October 16. From Khwaja Ali he followed the river to Seistan and travelled through western Afghanistan to the Hari Rud Valley west of Herat arriving in Kohsan on November 18. Crossing the Paropamisus through Chashma Sabz Kotal and proceeding through Kushk he reached Bala Murghab on December 14; here he spent two months. During the spring of 1885 his travels covered a large part of northwestern Afghanistan north and south of the Paropamisus. In June and July he made a journey from Islam Qala (Kafir Qala) to Meshed and back along the same route. About August 20 AITCHISON left the country, proceeding to Meshed along a more southern route through Mushabad.

During his travels AITCHISON collected 123 bird specimens which are now in the British Museum. They were examined by R. BOWDLER SHARPE and published (p. 66–93) in:

J. E. T. AITCHISON: The zoology of the Afghan Delimitation Commission. – Trans. Linn. Soc. London 5: 53–142 (1889).

A commission officer, Captain C. E. YATE, collected some of the birds for AITCHISON, and when the latter had left the commission YATE continued collecting in the area Bala Murghab-Maimana-Andkhui and to some extent on present-day Soviet territory along the rivers Murghab and Kushk. The material obtained, a little more than a hundred species, was presented to the Indian Museum, worked up by J. Scully, and published in:

I SCHLIN: On the mammals and hirds collected by contain C. F. VATE C. S. I.

southern frontier of the country between the river Gomal in the east and Kuh-i-Malik Siah in the west. The medical officer of the Commission during the last year's work, F. P. MAYNARD, travelled the territory between Pishin Lora, on the western frontier of Quetta, and Kuh-i-Malik Siah collecting en route some fifty bird species. The bulk of the collecting was done in February 1896 near the village Sahibzada on the river Pishin Lora in Shorawak in the southeastern corner of Afghanistan (Fig. 1). The collection, now kept in the Indian Museum, Calcutta, is listed in:

F. Finn: List of the birds collected by the Afghan-Baluch Boundary Commission of 1896. – Jour. Asiatic Soc. Bengal 65: 566-567 (1896).

The delimitation of the Afghan-Iran frontier in Seistan caused much trouble. An arbitration mission defined the frontier in 1872 but during the following decades the lower course of the river Helmand changed to a considerable extent, and disagreement on the location of the frontier ensued. In 1903-05 it was redefined by a Seistan Arbitration Commission. The Superintendent of the Commission, J. W. Cumming, and other members collected 106 specimens of birds, now kept in the Indian Museum, Calcutta. A list of the birds was published, with some observations, in:

J. W. NICOL CUMMING: Birds of Seistan, being a list of the birds shot or seen in Seistan by members of the Seistan Arbitration Mission, 1903-05. – Jour. Bomb. Nat. Hist. Soc. 16: 686-699 (1905).

This piece of information was repeated in:

E. C. STUART BAKER: Notes on two collections of birds from Seistan. – Rec. Indian Mus. 18: 121–134 (1919).

The other collection mentioned in the title comprises only 31 specimens collected in December 1918 by N. Annandale during a journey to Iranian Seistan with the purpose of studying the aquatic fauna of this province.

With the Seistan Arbitration Mission the period ended during which all ornithological exploration of Afghanistan was determined by wars and rectification of frontiers but nearly thirty years classed before the subject

In 1937 R. Meinertzhagen, accompanied by Salim Ali, collected rather extensively. They crossed the Khyber Kotal on April 2 and proceeded to Kabul. From Kabul the journey went through the Ghorband Valley, across the Shibar Kotal to Bamian and north along Surkhab down to Khanabad and Kunduz including also a trip to Haibak. The journey back to Kabul followed the same route. After a short visit to Unaï Kotal they left the country again through Khyber on June 1. The birds collected were worked up in:

R. Meinertzhagen: On the birds of Northern Afghanistan. – Ibis 1938: 480-520, 671-717.

The extensive travels in Afghanistan of the American botanist W. Koelz started in the same year, 1937, and were continued in 1939. An itinerary was never published but Dr. C. VAURIE has kindly placed at my disposal an itinerary based upon the data of the birds collected. In outline KOELZ' travels were as follows (Fig. 2): May 9, 1937 in Jalalabad, from there to Kabul; about May 19 to June 11 he proceeded to the northern slopes of Safed Koh in Khugiani; next through Laghman to Daulat Shah in Kohistan, and back to Kabul by Charikar. June 15-23 through Logar Valley and by Tera Kotal to Gardez, proceeding to Sarobi Kotal and back to Kabul. From Kabul a journey took him through Shibar Kotal (June 30) to Khanabad in Afghan Turkestan and on to Badakhshan where among other trips he followed the river Kokcha to Barak, next Warduj to Zebak and up along Sanglich to upper Kokcha which he followed down to Jurm. On August 30 he was back in Khanabad from where he proceeded through the lowlands of Afghan Turkestan through Kunduz, Tash Kurghan and Balkh to Aq Chah, Shibarghan and Sar-i-Pul. Towards the end of September he was back in Kabul. In early October the journey continued south through Mukur to Kandahar and then through Girishk to Farah whence he made a trip (October 31-November 6) to Kang in Seistan. From Farah he travelled north to Herat and proceeded to Afghan Turkestan: Bala Murghab, Maimana, Andkhui and Balkh. In the beginning of December he

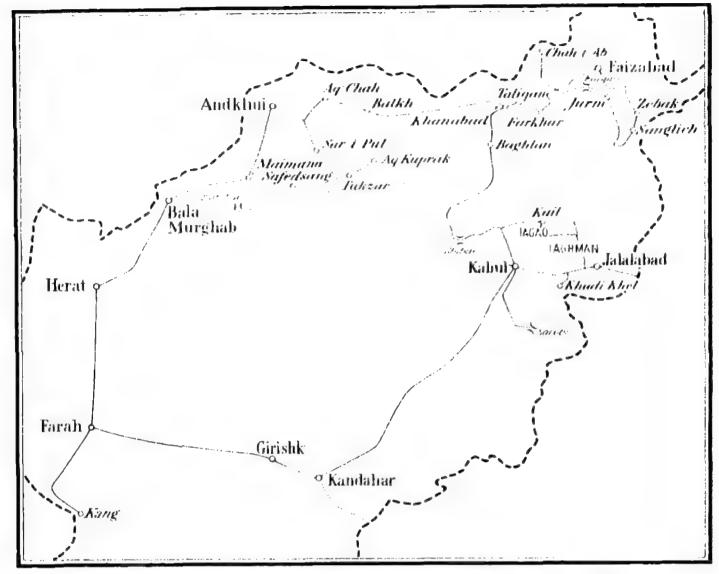


Fig. 2. Approximate routes followed by W. Koelz: - 1937, 1939.

Although Koelz' travels largely aimed at botanical collecting he achieved to send home the hitherto largest collection of birds from Afghanistan; it is therefore regrettable that nothing was published on the route and the observations. In the absence of the correct itinerary I have attempted to give fairly detailed information on his route although it may only be correct in outline.

The collections from 1937 are now in American Museum, New York, while the 1939 material is partly in Chicago Natural History Museum and partly in Museum of Zoology, Ann Arbor.

Based upon his material Koelz published a number of new subspecies from Afghanistan, they are included in the survey at the end of this chapter, to which the reader is referred.

- No. 4. 1950. C. VAURIE: Notes on some Asiatic titmice. Am. Mus. Nov. 1459: 66 pp.
- No. 5. 1950. D. Marien: Notes on some Asiatic Meropidae (Birds). Jour. Bomb. Nat. Hist. Soc. 49: 151–164.
- No. 6. 1950. C. Vaurie: Notes on some Asiatic nuthatches and creepers. Am. Mus. Nov. 1472: 39 pp.
- No. 7. 1951. D. MARIEN: Notes on the bird family Prunellidae in Southern Eurasia. Am. Mus. Nov. 1482: 28 pp.
- No. 8, 1951. C. Vaurie: Notes on the wrens and dippers of western Asia and India. Am. Mus. Nov. 1485: 19 pp.
- No. 9. 1950. D. Marien: Notes on some Asiatic Sturnidae (Birds). ~ Jour. Bomb. Nat. Hist. Soc. 49: 471–487.
- No. 10. 1951. D. Marien: Notes on some pheasants from southwestern Asia, with remarks on molt. Am. Mus. Nov. 1518: 25 pp.
- No. 11. 1951. C. VAURIE: A study of Asiatic larks. Bull. Am. Mus. Nat. Hist. 97: 431-526.
- No. 12. 1951. C. Vaurie: Notes on some Asiatic swallows. Am. Mus. Nov. 1529: 47 pp.

Koelz' collections were also widely used for the "Systematic Notes on Palearctic Birds" published by C. Vaurie (1953-58) in American Museum Novitates and to which reference will be found in the general list of references.

Material from Koelz' collections was also utilized in:

BISWAMOY BISWAS: On the shrike Lanius tephronotus (VIGORS), with remarks on the erythronotus and bicolor groups of Lanius schach LINNÊ, and their hybrids. – Jour. Bomb. Nat. Hist. Soc. 49: 444–455 (1950).

However, parts of Koelz' collections have not yet been published and when in the following it is stated that a species has not hitherto been recorded from Afghanistan it is tacitly understood that it may have been collected by Koelz but that the record has not yet been published.

In 1944 Hugh Whistler commenced the publication of an exceedingly useful contribution which brings together practically everything that has been published on the birds of Afghanistan. This work also records the

contributions see the beginning of a growing interest in Afghan bird life among the country's own scientific institutes. The author, though not a born Afghan, is professor of Biology in the Faculty of Science at the University of Kabul. This must be welcomed since very much still remains to be done before we have a reasonably good idea of the bird fauna of this extensive and interesting country. The three papers are:

- S. A. Akhtar: Babar the Great on flamingoes. -- Jour. Bomb. Nat. Hist. Soc. 46: 545-547 (1946).
- S. A. AKHTAR: Ab-istadeh, a breeding place of the flamingo (*Phoenicopterus ruber roseus* (PALLAS)) in Afghanistan. Jour. Bomb. Nat. Hist. Soc. 47: 308–314. (1947).
- S. A. AKHTAR: Bird migration and fowling in Afghanistan. Jour. Bomb. Nat. Hist. Soc. 53: 49–53 (1955).

As a supplement to the historical account the following list contains the birds which have been described from Afghanistan. The list gives references to a number of smaller contributions which have not been mentioned above, and a number of type localities are defined in such detail that they may be located on maps generally available.

- Ammoperdix griseogularis peraticus Koelz 1950, (= A. g. peraticus)¹). Am. Mus. Nov. 1452: 1. Type locality Burchao Pass, Bend-i-Turkestan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
- Tetrao himalayensis bendi Koelz 1951 (= T. h. bendi). Am. Mus. Nov. 1510: 1. Type locality Safedsang, northwestern Afghanistan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
- Francolinus francolinus festinus Koelz 1954 (= F. f. bogdanovi). Contrib. Inst. Regional Expl. 1: 30. Type locality Girishk. Type in Am. Mus. Nat. Hist.
- Pucrasia castanea Gould 1855 (= P. macrolopha castanea). Proc. Zool. Soc. London 1854: 99. Type locality Kafiristan (= Nuristan). Collected by Griffith. Type in Brit. Mus. London.
- Phasianus principalis Sclater 1885 (= Ph. colchicus principalis). Proc. Zool. Soc. London 1885: 322. Type locality Bala Murghab. Collector Aitchison. Type in Brit. Mus. London.
- Pterocles orientalis bangsi Koelz 1939 (= Pt. o. bangsi). Proc. Biol. Soc. Washington 52: 81. Type locality Tolokhan (= Taliqan, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Athene hactrianus Bryth 1847 (- A noctua hactriana) Jour Asiatic Soc Bangal 16:

- Melanocorypha torquata BLYTH 1847 (= M. bimaculata torquata). Jour. Asiatic Soc. Bengal 16: 476. Type locality Afghanistan. Collector HUTTON.
- Melanocorypha maxima Gould 1867 (= M. m. maxima). Birds of Asia 4, plate 72. Type locality Afghanistan (Error, the border of Sikkim proposed as type locality by Hartert in Vögel paläarkt. Fauna 1: 211).
- Hirundo rustica afghanica Koelz 1939 (= H. r. rustica). Proc. Biol. Soc. Washington 52: 75. Type locality Baghlan, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Molpastes leucogenys picru Koelz 1954 (= Pycnonotus leucogenys). Contrib. Inst. Regional Expl. 1: 11. Type locality Laghman, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Molpastes leucotis farahensis Koelz 1939 (= Pycnonotus leucotis leucotis). Proc. Biol. Soc. Washington 52: 64. Type locality Farah. Type in Am. Mus. Nat. Hist.
- Hypocolius ampelinus orientalis Koelz 1939 (= H. ampelinus). Proc. Biol. Soc. Washington 52: 64. Type locality Kandahar. Type in Am. Mus. Nat. Hist.
- Cinclus pallasii kargasiensis Koelz 1939 (= C. p. tenuirostris). Proc. Biol. Soc. Washington 52: 65. Type locality Kargasi Pass. cf. figure 2. Type in Am. Mus. Nat. Hist.
- Prunella strophiatus sirotensis Koelz 1939 (= P. s. jerdoni). Proc. Biol. Soc. Washington 52: 67. Type locality Sirotai (= Saroti, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Accentor huttoni Horsfield & Moore 1854 (= Prunella atrogularis huttoni). Cat. Birds East Ind. Comp. Mus. 1:360. Type locality Simla and Afghanistan. Collector Griffith. Type in Brit. Mus. London.
- Ruticilla grandis Gould 1850 (= Phoenicurus erythrogaster grandis). Proc. Zool. Soc. London 17: 112. Type locality Afghanistan and Thibet. No type.
- Ruticilla rufogularis Moore 1854 (= Phoenicurus erythronotus). Proc. Zool. Soc. London 22: 27. Type locality Pashat, cf. figure 1. Collector Griffith. Type in Brit. Mus. London.
- Saxicola barnesi OATES 1890 (= Oenanthe finchii barnesi). Fauna Brit. India, Birds 2: 75. Type locality Baluchistan and Afghanistan westwards to Persia; restricted to Kandahar. The type, an adult male in autumn moult, collected at Kandahar on September 12, 1879, by St. John. In Brit. Mus. London.
- Oenanthe isabellina kargasi Koelz 1939 (= Oe. isabellina). Proc. Biol. Soc. Washington 52: 66. Type locality Kargasi Pass, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Turdus merula brodkorbi Koelz 1939 (= T. m. intermedia). Proc. Biol. Soc. Washington 52: 67. Type locality Farakar (= Farkhar, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Malacocercus Huttoni BLYTH 1847 (= Turdoides caudatus huttoni). Jour. Asiatic Soc. Bengal 16: 476. Type locality Kandahar. Collector Hutton. Type in Brit. Mus. London.
- Garrulax variegatus nuristani Paludan 1959. This paper p. 226. Type locality Pashki,

- Orites (?) leucogenys Moore 1855 (= Aegithalos leucogenys). Proc. Zool. Soc. London 1854: 139. Type locality "Woods above Balu Chughur" (at Chigha Sarai, cf. figure 1). Collector Griffith. Type in Brit. Mus. London.
- Sitta hariabica Whistler 1944 (= S. europaea cashmirensis). Jour. Bomb. Nat. Hist. Soc. 44: 516. Type locality Byan Khel in the Hariab Valley, cf. figure 1. Collector Wardlaw-Ramsay. Type in Brit. Mus. London.
- Sitta neumayer subcæruleus Meinertzhagen 1938 (= S. t. tephronota). Bull. Brit. Orn. Club 58: 96. Type locality Haibak. Type in Coll. Meinertzhagen.
- Certhia himalayana cedricola Koelz 1939 (= C. h. limes). Proc. Biol. Soc. Washington 52: 65. Type locality Jalalabad. Type in Am. Mus. Nat. Hist.
- Zosterops palpebrosa remota Koelz 1939 (= Z. p. egregia). Proc. Biol. Soc. Washington 52: 76. Type locality Jalalabad. Type in Am. Mus. Nat. Hist.
- Emberiza Huttoni BLYTH 1849 (= E. b. buchanani). Jour. Asiatic. Soc. Bengal. 17: 811. Type locality Afghanistan. Type in Brit. Mus. London.
- Chloris chloris smithae Koelz 1939 (= Ch. ch. turkestanicus). Proc. Biol. Soc. Washington 52: 74. Type locality Balkh. Type in Am. Mus. Nat. Hist.
- Carduelis caniceps paropanisi Kollibay 1910 (= C. carduelis paropanisi). Orn. Monatsber. 18: 148. Type locality "Narim Tal, Hindukusch, Nordafghanistan" (Error, the type locality is Naryn, Tianshan).
- Carpodacus crassirostris BLYTH 1847 (= Rhodopechys githaginea crassirostris). Jour. Asiatic Soc. Bengal 16: 476. Type locality Afghanistan, the type specimen, however, was collected at Quetta by HUTTON. It is in Brit. Mus. London.
- Erythrina synoica salimalii Meinertzhagen 1938 (= Carpodacus synoica salimalii). Bull. Brit. Orn. Club 58: 95. Type locality Akrobat (= Aq Ribat). Type in Coll. Meinertzhagen.
- Carpodacus rhodochlamys bendi Koelz 1949 (= C. r. grandis). Auk 66: 209. Type locality Burchao Pass, Bend-i-Turkestan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
- Erythrina rubicilla diabolica Koelz 1939 (= Carpodacus r. diabolica). Proc. Biol. Soc. Washington 52: 75. Type locality Sanglech (= Sanglich, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Petronia petronia intermedia HARTERT 1901 (= P. p. intermedia). Nov. Zool. 8: 324. Type locality Kashmir and Kandahar. The type is from Gilgit.
- Passer griseogularis Sharpe 1888 (= P. domesticus (bactrianus)). Cat. Birds Brit. Mus. 12: 313. Type locality Kandahar. Collector Swinhoe. The type, a freak intersex, in Brit. Mus. London.
- Passer yatii Sharpe 1888 (= P. moabiticus yatii). Cat. Birds Brit. Mus. 12: 322. Type locality between De-kamran and De-doda (Seistan), cf. figure 1. Collector Ait-chison. Type in Brit. Mus. London.
- Montifringilla theresæ Meinertzhagen 1937 (= M. theresae). Bull. Brit. Orn. Club 58:

Pica bactriana Bonaparte 1850 (= P. pica bactriana). Consp. Gen. Avium 1: 383. Type locality Kandahar.

Corvus sharpii OATES 1889 (= C. corone sharpii). Fauna Brit. India. Birds 1: 20. Type locality Siberia, Turkestan, Afghanistan, and a portion of India. Type in Brit. Mus. London, 3 ad., collected at Nurdan, NW Frontier Province, December 15, 1870, by J. N. JOHNSON.

III. Account of the journey; with notes on main habitats and their birds

1. Some general remarks on the geography of Afghanistan

With an area of 720,000 km². Afghanistan is well above double the size of Great Britain and Ireland combined, and the fact that its population only amounts to 12 million people tells something about the nature of the country. The greater part of the country, with Baluchistan, makes the eastern part of the Iranian plateau which is surrounded by enormous mountain ranges forming part of the Tertiary folding which extends through central and south Asia as well as Europe. From the Pamir Massif the Hindukush Range cuts southwest through northern Afghanistan, reaching a height of about 7700 m. (Tirich Mir) on the border of Afghanistan. Gradually the range assumes a more westerly course, and in the western part of the country where it continues as the Paropamisus it has also lost much height only to rise again, in northern Iran, into the impressive summits of the Elburs Mountains.

From the Pamir Massif another range, the Sulaiman Mountains, extends south and form the eastern boundary of the Iranian plateau along the Indian plains. On reaching the Arabian Sea the range bends west as border mountains along the Makran Coast and continues as the Zagros Mountains from southern Iran towards northwest. The Zagros Mountains merge with the most westerly spurs of the Elburs Mountains in the Armenian Massif thus completing the ring of mountains round the Iranian Plateau. The plateau itself is not, as the name might be thought to imply, a level table-

Hindukush and south of the border river Oxus (Amu Darya) belongs to Turkestan proper in a geographical sense. It is largely occupied by foothills and low-lying steppes.

As regards climate Afghanistan belongs to an eastward extension of the Mediterranean region. During the winter months the southern stream of cyclones of the westerly wind belt carries with it some precipitation as snow and rain. The summer, however, is rainless due to the border mountains which prevent the humid monsoon from reaching the country, only in the border mountains do they cause some rain to fall in the Sulaiman Mountains and on the south facing slopes of Hindukush, i.e. roughly in Nuristan.

The annual precipitation, falling between January and April, rarely exceeds 50 cm. in the more elevated parts of Afghanistan while in the lower regions in north and south it ordinarily amounts to not more than 5–10 cm. (STAMP). Since two thirds of the year, including the very hot summer, are practically without rain the vegetation is exceedingly sparse and dominated by xerophiles. In south and north true deserts occur while the rest of the country is dry steppe or steppe-desert. An exception to this is Nuristan and part of the eastern border mountains where the monsoon creates favourable conditions for extensive forests of conifers and evergreen oaks.

2. Itinerary

The travels indicated in the chronological table below have been entered on to the map at the end of the paper. The elevations given can only be considered approximate; they were obtained from barograph readings by the author or other members of the expedition using as our fixed standard the elevation of Kabul, 1780 m. The elevations were measured at the camp which usually coincides with the geographical names given although exceptions occur, thus e.g. at Gusalek where the camp was in the valley above the village whereas at Wama it was at the river while the village is located about 400 m. further up the very steep rock wall. The distances given for journeys made by car are speedometer readings.

Nuristan (Pech-Parun Valley) Gusalek (1100 m.) 22. ii.-28. iii. Wama (1550 m.) 31. iii.-6. v. Pashki (2300 m.) 7. v.-15. vi. Stiewe (2600 m.) 15.-28. vi. Badakhshan (Kokcha, Warduj, and Sanglich valleys) 29.-30. vi. Stiewe – Weran Kotal (4400 m.) – Miyan Deh 1.-2. vii. Miyan Deh (2560 m. Kokcha Valley) 3.-4. vii. Kachari (2300 m.) 4.–7. vii. Parwara - Azasaid - Iskan - Jurm 8.-9. vii. Jurm (1390 m.) Faizabad (1070 m.) 9.-11. vii. 12. vii. Faizabad-Barak Barak - Supian (1800 m. Warduj Valley) - Zebak 13.-14. vii. (2390 m.) 14.-17. vii. Zebak – Sanglich (2950 m.) – Maghnaol – Miyan Deh - Tilli 18.–19. vii. Tilli (2690 m. Kokcha Valley) 20.–22. vii. Tilli - Weran Kotal - Stiewe Nuristan 23. vii. Stiewe - Pashki 24.-28. vii. Pashki 29. vii.-1. viii. Pashki - Wama - Gusalek 2.-5. viii. Gusalek 6.-10. viii. Gusalek - Chigha-Sarai - Jalalabad - Kabul 11. viii.–23. ix. Kabul

Kabul – Jalalabad – Peshawar

12.–13. i. Peshawar – Kabul

24.–25. ix.

1949

19. iii.-20. iv. Faizabad (2.-7. iv.: Faizabad - Farah - Girishk - Faizabad)

21. iv. Faizabad - Farah

22. iv.-2. v. Farah (690 m.)

3.-4. v. Farah - Girishk - Lashkari-Bazar

5. v. Lashkari-Bazar

6.-7. v. Lashkari-Bazar - Girishk - Kandahar - Mukur

Eastern Afghanistan

8. v. Mukur (1975 m.)

9. v. Mukur – Ab-i-Istada (1940 m., 41 km.) – Mukur

10. v. Mukur – Maidan – Kabul (270 km.)

11.-22. v. Kabul

23. v. Kabul – Logar Valley – Tera Kotal (2880 m.) – Gardez (132 km.)

Gardez (2350 m.)

25. v. Gardez - Saroti Kotal (2975 m., 40 km.) - Gardez

26. v. Gardez - Tera Kotal - Wardak - Kabul (180 km.)

27.-31. v. Kabul

24. v.

Bamian I

1.-2. vi. Kabul - Ghorband - Shibar Kotal (2910 m.) - Doab (269 km.)

3. vi. Doab (1550 m.)

4.-5. vi. Bamian

6. vi. Bamian – Nil Kotal (3380 m.) – Bamian

7. vi. Bamian – Shibar Kotal – Kabul (244 km.)

8. vi. Kabul

Hazarajat

9.-11. vi. Kabul - Maidan Valley - Unaï Kotal (3100 m.) - Panjao

12.-17. vi. Panjao (2700 m.)

Hari Rud Valley 2.-7. vii.Herat (1050 m.) (6. vii.: Ardewan Kotal (1640 m., 53 km.)) 8.-9. vii. Herat – Islam Qala (880 m., 130 km.) 10. vii. Herat 11.-18. vii. Obeh (the hotel 1830 m.; 112 km. from Herat) Kwaja Chisht (= Chisht-i-Sharif) (1640 m.; 167 km. 19.-20. vii. from Herat) Herat 21. vii. Northern Afghanistan Herat – Sauzak Kotal (2500 m.) – Qala Nau (165 km.) 22. vii. 23. vii. Qala Nau (950 m.) 24. vii. Qala Nau – Miana Bam (at southern tributary to Murghab) – Bala Murghab (117 km.) Bala Murghab (560 m.) 25. vii. 26. vii. Bala Murghab - Chahar Shamba - Qaisar - Maimana (187 km.) 27. vii. Maimana (920 m.) 28. vii. Maimana – Daulatabad – Andkhui (147 km.) 29. vii. Andkhui (440 m.) 30. vii. Andkhui – Shibarghan – Aq Chah – Mazar-i-Sharif (239 km.)31. vii. Mazar-i-Sharif (470 m.) 1. viii. Mazar-i-Sharif – Tashkurghan – Haibak (115 km.) 2.-3. viii. Haibak (1050 m.) 4. viii. Haibak – Paigah Kotal (1440 m.) – Pul-i-Khumri (94 km.)

Pul-i-Khumri – Chashma-i-Sher – Pul-i-Khumri

Pul-i-Khumri – Doab – Kabul (430 km.)

Bamian II

5. viii.

6.-7. viii.

3. Physiography; characteristic birds; bird migration

Nuristan (Kafiristan)

During the spring and summer of 1948 the author travelled in Nuristan and Badakhshan with the botanist, cand. mag. LENNART EDELBERG. On February 19 we left cold and rainy Kabul (about 1780 m. above sea level) and drove by lorry to Darontah (500 m.), about 8 km. northwest of Jalalabad. We had to halt here for a couple of days in order to settle local formalities in Jalalabad. During this stay we made a few minor excursions in the wide valley which to a large extent is brought under cultivation. Outside the arable land the valley is very barren and the vegetation exceedingly sparse. The predominant birds were: Galerida cristata, Ammomanes deserti and Oenanthe xanthoprymna. Along the Kabul river we saw among other species Ceryle rudis, Motacilla alba personata and a few waders. Compared to the central highland from where we started the milder climate of this lower lying district was noticeable, and it also influenced the bird fauna which here counted Upupa epops, Hirundo rustica and Passer domesticus, birds which leave the more elevated parts of the country during winter.

Next we drove up through the much narrower Kunar Valley where extensive waste land dominates the picture while villages with their surrounding fields were few and far apart. At Chigha Sarai we left the Kunar Valley and proceeded west, up along the river Pech. The Kunar is bounded by wooded hill slopes on either side but not until some distance up the Pech Valley does the valley bottom reach the oak forest zone. The valley is very narrow here, and only in few places it expands so much that small plots of terraced fields could be made. We made our first halt at Gusalek, a village at the bending of the river where it changes its course from NE-SW to W-E. This village is a terminus for all wheel-borne vehicles and we camped a little distance north of the village, at 1100 m. In late February, when we were there, the bottom of the valley was snowless but all surrounding mountains still covered by snow and higher up the valley itself was impassable for a long time due to snow. We were in Gusalek



Fig. 3. The village Gusalek (appr. 1100 m. altitude) where Digal falls into the river Pech. Nuristan. In the foreground terraced fields. Quercus balout on the hill sides. 12. iii. 48.

Round Gusalek, at the confluence of the rivers Digal and Pech (Fig. 3), the valley is relatively wide and cultivated while a short distance above the village it narrows and assumes v-shape (Fig. 4). Here the roaring river occupies the entire valley bottom while the path turns and twists on the steep hillside. Some distance above Wama the river passes between vertical rock walls but soon the valley again is v-shaped.

The Quercus zone

Gusalek as well as Wama fall within the Quercus zone the predominant species of which is the evergreen Quercus balout which grows on the lower part of the hillsides up to about 2000 m. In most places the trees are rather scattered without forming closed canopy (Fig. 4); in particular this is the



Fig. 4. The Pech Valley above Gusalek. The steep hillsides carry very open oak forest. 29. iii. 48.

I believe that the list given below contains the majority of species characteristic of the oak forest. It can be added that the very open oak wood with sparse ground flora does not create conditions for a rich and varied bird fauna.

The more important breeding birds in the oak zone were:

Falco subbuteo (74)¹)
Falco tinnunculus (78)
Streptopelia orientalis (156)
Psittacula himalayana (161)
Strix aluco (167)
Picus squamatus (186)
Dendrocopus himalayensis (188)
Dendrocopus auriceps (189)

Phylloscopus occipitalis? (287)
Terpsiphone paradisi (318)
Parus major (320)
Parus melanolophus (322)
Aegithalos leucogenys (323)
Dicrurus macrocercus (377)

Turdus viscivorus (271)

Garrulax lineatus (276)



Fig. 5. The Parun Valley at Pashki (appr. 2300 m.). Nuristan. In the bottom of the valley hazel copses and fields. On the slopes mixed coniferous forest.

transition between oak and conifer forest (here *Cedrus deodara*) is located at about 1800–2000 m. although individual oak trees occur even at Pashki (2300 m.).

Some distance below Pashki the nature of the valley changes. While further down it was shaped like a v and the torrent occupied almost the entire bottom it now adopts u-shape (Fig. 5) and since the river here only occupies a smaller part of the bottom space is left for arable land, irrigated meadows, poplars and hazel and willow brush. In addition to the birds associated with the river we observed the following breeding birds in the bottom of the valley at Pashki:

Cuculus canorus (162) Upupa epops (184) Muscicapa ruficauda (317) Parus major (320)



Fig. 6. The coniferous zone (Pinus gerardiana, Cedrus deodara and others) near Pashki. Nuristan. The village is visible on a rounded rock outcrop just above the bottom of the valley. 11. v. 48.

ferous forests was not made until we reached Pashki. Here they occur from the bottom of the valley up the steep mountain slopes to an elevation varying between 3000 and 3200 m. (Fig. 6). The northwest facing slopes are dominated by *Pinus excelsa*, *Abies webbiana* and *Picea morinda* while the drier southeast facing slopes carry *Cedrus deodara* and, more commonly,

Pinus gerardiana

out on the days during which the cattle was taken up to the pastures above timber line due to the habit of making fires in several places along the routes followed by the droves; these fires served the purpose of keeping away all the large beasts of prey.

Owing to the short time available and the time-consuming collecting and preparation I did not succeed in obtaining a material which enabled me to analyze the preference of individual species for certain types of conifer forest but I was under the impression that the different forest types were inhabited by the same species although with one striking exception, namely that *Emberiza stewarti* occurred largely in the *Pinus gerardiana* forest where one never saw *Emberiza cia*; this latter was very abundant in the *Abies* and *Picea* forests, especially in glades.

In the conifer zone in general the following species were recorded:

Accipiter nisus (48)

Falco tinnunculus (78)

Lophophorus impejanus (84)

Pucrasia macrolopha (85)

Streptopelia orientalis (156)

Dendrocopos himalayensis (188)

Dendrocopos auriceps (189)

Pericrocotus brevirostris (222)

Phoenicurus coeruleocephalus (250)

Monticola cinclorhynchus (255)

Turdus viscivorus (271)

Phylloscopus tytleri (280)

Phylloscopus subviridis (284)

Phylloscopus occipitalis (287)

Regulus regulus (288)

Muscicapa sibirica (316)

Muscicapa ruficauda (317)

Parus rubidiventris (321)

Parus melanolophus (322)

Sitta europaea (325)

Sitta leucopsis (326)

Certhia himalayana (329)

Emberiza stewarti (336)

Emberiza cia (339)

Carpodacus erythrinus (355)

Carpodacus rhodochlamys (357)

Nucifraga caryocatactes (383)

Corvus macrorhynchos (386)

Several of the species mentioned were found in particular abundance in the glades. Where these had been invaded by *Viburnum*, *Rosa*, *Lonicera* and other bushes the following additional species occured:

Alectoris graeca (81)

Cuculus canorus (162)

Luscinia brunnea (243)

Garrulax variegatus (277)

Sylvia althaea (307)

Serinus pusillus (344)



Fig. 7. Juniperus zone at 3100-3200 m., above Pashki. Nuristan. 25. vii. 48.

is also different. On several occasions I visited this *Juniperus* zone which harboured a very poor bird life. It is best characterized as the fauna of the conifer forest and glades in extreme dilution. The only species I came across among the Junipers and which had not been seen in other places during the breeding period was the wren. The following list gives the species recorded from the *Juniperus* zone:

Alectoris graeca (84) Cuculus canorus (162) Troglodytes troglodytes (235) Phylloscopus tytleri (280) Emberiza stewarti (336) Emberiza cia (339) Serinus pusillus (344)

At about the same altitude (ca. 3000 m.) also *Phylloscopus griseolus* (281) lived; it inhabited the steep hill sides strewn with boulders and with a sparse vegetation consisting of *Vihurnum* and *Rosa*

Tetraogallus himalayensis (80) Upupa epops (184) Monticola solitarius (254) Oenanthe pleschanka (263) Montifringilla nivalis (369) Pyrrhocorax graculus (380)

On June 15 we moved our camp from Pashki to Stiewe, the last village in the valley. During this stretch one is taken above the forest zone which in the upper, dry part of the valley gives in at lower altitudes than on the hillsides further down the valley. At Kustaki (2375 m.) only scattered Pinus gerardiana and a few Picea remain on the slopes and a short distance further up the valley they disappear altogether leaving the slopes bare of trees and at most carrying an open vegetation of dry and spiny herbs.

At Stiewe (ca. 2600 m.) (Fig. 8) the bottom of the valley is fairly broad, and along the river and on the irrigated slopes copses of willow, birch, walnut and poplar occur. They also penetrate into the lower part of the small secondary valleys and even up to 3600 m. altitude brush of stunted willows is found along the brooks.

The following birds were found breeding in the main valley around Stiewe, disregarding those associated with the river:

Cuculus canorus (162) Upupa epops (184) Luscinia pectoralis (244)

Oenanthe pleschanka (263)

Garrulax variegatus (277)

Sylvia althaea (307)

Parus major (320)

Emberiza cia (339)

Carduelis carduelis (346)

Carpodacus erythrinus (355)

Pica pica ? (382)

Corvus macrorhynchus (386)

Several of these species also penetrate some distance up the tributary valleys with a reasonably rich vegetation of bushes. Higher up where the bottom of the valley and the slopes were strewn with rocks and where low scrub, largely willow, had become rare I saw:

Prunella collaris (236)

Monticola solitarius (254)

Prunella strophiata (238)

Phylloscopus griseolus (281)

Phoenicurus ochruros (246)

while on the Artemisia covered slopes I found:

Alectoris graeca (81)

Leucosticte nemoricola (349)



Fig. 8. Valley bottom near Stiewe, appr. 2600 m. Nuristan. An irrigation canal causes the sharp boundary on the hillside. 24. vi. 48.

breed locally perhaps with the exception of the large birds of prey which may be stragglers from far away. To these birds belong:

Gyps fulvus (61) Gypaëtus barbatus (64) Columba leuconota (149) Columba livia (151) Apus apus (175) Hirundo rupestris (203)

Delichon urbica (209)

Pyrrhocorax pyrrhocorax (379)

Pyrrhocorax graculus (380)

Some of these species had already been observed further down the valley as will be seen from the notes on individual species given elsewhere.

It is pointed out here that whilst the two pigeons were more abundant at Pashki than at Stiewe the two choughs were more abundant in the latter place. Tringa hypoleucos (119) Ceryle rudis (177) Motacilla cinerea (220) Motacilla alba (221) Cinclus pallasii (234) Chaimarrornis leucocephalus (251) Rhyacornis fuliginosus (252) Myiophoneus caeruleus (272) Enicurus scouleri (273) Enicurus maculatus (274)

The birds of the villages
In the villages the following birds occurred:

Passer montanus (366)

Sturnus tristis (374)

and in the Pech Valley they only occurred up to Gusalek, while higher up the valley no birds seemed to be particularly associated with the village.

Spring migration through Central Nuristan

During February and March the snowless valley round Gusalek showed some concentration of birds which had come down from the central parts of the mountains where winter still reigned. In particular this was true of birds associated with water courses but to some extent also of *Columba livia* and *C. rupestris*.

As far as the true migrants are concerned they might reasonably be assumed to avoid Central Afghanistan since during the spring all valleys here lead up to snow covered heights with passes at well above 4000 m. altitude. In case the migrating birds followed a course along the valleys a noticeable spring migration could hardly be expected along the Pech-Parun Valley since the southern entrance to this valley is barred by the Kashmund Mountains, a gigantic snow covered massif towering up in front of migrating birds coming up the Kunar Valley. It would therefore seem more likely that migrating birds followed the Kunar Valley to proceed northwards through the Kamdesh Valley or through Chitral. Actually, my observations confirm that some species migrate fairly extensively through central Nuristan, a fact which may support the assumption that migration takes place on a broad front. Whether a concentration takes place at the far end, through the passes leading over the main mountain range,

However, to this list should be added a large number of species which were only observed a few times but which, nevertheless, obviously migrate through central Nuristan:

Anas crecca (29)
Anas strepera (34)
Pandion haliaëtus (70)
Porzana pusilla (93)
Tringa ochropus (117)
Jynx torquilla (185)
Hirundo rustica (205)
Lanius collurio isabellina (226)
Prunella atrogularis huttoni (239)
Phoenicurus erythronotus (249)
Saxicola torquata maura (256)

Oenanthe xanthoprymna chrysopygia
(261)
Oenanthe picata ("opistholeuca" et
"capistrata") (264)
Turdus ruficollis atrogularis (270)
Phylloscopus collybita tristis (278)
Locustella naevia straminea (291)
Sylvia nisoria (302)
Ficedula parva (313)
Emberiza leucocephala (333)

Ducks and waders were strikingly rare among the migrating birds. This can perhaps be explained through the fact that to these birds the roaring and churning main river and the smaller mountain streams must offer remote chances of finding food or a resting place. Therefore, even in the case that a considerable migration took place over the territory it is not likely to show up very much.

Still more striking is the fact that birds of prey were practically not seen migrating. If, however, the birds of prey largely migrate along the mountain ridges or along slopes above timber line in order to take advantage of the upwinds and the more easily exploited open hunting ground the migration will not be noticed much by an observer travelling along the bottom of the valley or on the wooded part of the hill sides; on the other hand I feel that, had there been a migration of birds of prey, it could hardly have escaped my attention so completely.

Badakhshan

Towards the end of June we considered it impossible to find new and profitable fields in the Pech-Parun Valley and accordingly we decided to cross the main mountain range in order to spend the month of July on the



Fig. 9. The Kokcha Valley a little above Tilli (appr. 2700 m.). Badakhshan. In the foreground and on the slopes xerophiles. In the middle distance river copses formed by willow, barberry and Hippophaës sp. and inhabited by Luscinia svecica, Phylloscopus inornatus and Passer hispaniolensis. On the left a large cone of erosion products. 19. vii. 48.

south facing slope patches of snow occurred right down to 3500 m. and snow from avalanches down to 3100 m. The snow masses disappear again during the summer although perpetual snow occurs but not to the extent indicated on most maps; we found a tributary valley north of the pass, at an altitude of about 4000 m., which was occupied by an extensive glacier.

From the pass we proceeded down through the Weran Valley to Nau and, along the Munjan River (the lower reaches of which are called Kokcha), to Jurm and Faizabad. From here we travelled back through the Warduj Valley to Zebak, through the Sanglich Valley and through the Munjan Pass (3640 m.). (This name is associated with other passes also).



Fig. 10. In the left foreground the river Kokcha. The town Faizabad (1070 m.) is hidden behind trees. The surrounding hillsides are partly cultivated. Characteristic birds:

Galerida cristata, Anthus campestris, Oenanthe pleschanka, Oenanthe picata.

Badakhshan, 11. vii. 48.

in other places we found areas with an open grass cover but otherwise the poor Artemisia steppe has conquered the areas of valley and hillside where plants can grow at all. At about 1900 m. altitude at Robat in the Kokcha Valley a little Juniperus polycarpos occurs on the hill slopes, the bushes are scattered and, as far as it could be made out from the valley, they do not form continuous scrub. In the upper part of the Warduj Valley a similar growth occurs. Proceeding down the valley the contours of the surrounding mountains grew more rounded and smooth and at Faizabad (Fig. 10) the surrounding hills, especially the north facing side, supported extensive plots of arable land. At Faizabad we also came across extensive areas covered by grass but they were brown and scorched by sup and

Nuristan but managed to find it in a single place north of the chief mountain ridge. Montifringilla nivalis appeared to be equally scarce in the north and the south. Columba rupestris was observed as a winter visitor at Gusalek, in Nuristan I searched in vain for it in the high alpine zone during the breeding season but in Badakhshan the species was observed on several occasions. The alpine fauna of Badakhshan comprised another two species which were not seen in Nuristan: Leucosticte brandti and Prunella fulvescens.

The more quiet rivers, often flowing through wider valleys and often with grassy banks created breeding conditions for *Charadrius dubius* and *Motacilla citreola* while the scrubs along the rivers harboured species not seen in Nuristan during the breeding season: *Luscinia svecica*, *Phylloscopus inornatus* and *Passer hispaniolensis*.

No breeding larks were observed in Nuristan while four species occurred in Badakhshan: Eremophila alpestris, Melanocorypha bimaculata, Galerida cristata and Alauda gulgula. The more steppe-like character of the province also determined the occurrence of Coturnix coturnix, Anthus campestris and Oenanthe xanthoprymna while the increasing abundance of Passer domesticus and P. montanus is attributed to the more extensive areas of arable land and the improved animal husbandry.

As for crows it was striking to come across a familiar bird, *Corvus corone*, while in Nuristan it was replaced by *Corvus megarhynchus*; the two species seem identical to a casual observer but their voices are slightly different. *Pica pica* which made its first appearance in the upper parts of the valleys south of the chief mountain range was now more abundant and had its share in stressing the palearctic character of the fauna.

Eastern Afghanistan

The valleys between Kabul and Kandahar

During the first six months of 1949 I often travelled between Kabul (1770 m.) and Kandahar (1030 m.) but collecting was done in a few places



Fig. 11. Scenery near Mukur (1970 m.) Eastern Afghanistan. In the foreground abandoned fields recolonized by steppe vegetation. Three Calandrella species were collected here: rufescens, acutirostris and cinerea. 8. v. 49.

while in some places the naked rock walls dominate. In places the bleakness gives way to villages surrounded by arable land created by means of irrigation. Here and there the river is bordered by willow, poplar or tamarisk.

Irrespective of whether they breed here or in the surrounding mountains the following birds are characteristic of the steppe community of these valleys:

Gyps fulvus (61)
Neophron percnopterus (63)
Ammoperdix griseogularis (79)
Pterocles orientalis (147)

Merops apiaster (180) Upupa epops (184) Galerida cristata (198) Oenanthe isabellina (267)

Ab-i-Istada

On May 9, 1949 we made a trip from Mukur to Ab-i-Istada, a salt lake at 1940 m. altitude and about 40 km. SE of Mukur. After having followed the main road to Qala Khan (presumably the same as Karauddin (AKHTAR, 1947)) at the southern border of the lake we drove 14 km. along the southeastern border. The lake (Fig. 12) is closely surrounded by steppe while the lake border is covered by a white layer of salt. Neither trees nor scrub was within sight and also marshy areas were absent. Using the kayak I paid a visit to a small island some distance out, undoubtedly identical with Akhtar's "Iland II". The depth of the water did not exceed one metre but the bottom was all mud, and the water was very salty to the taste. At the lake the following birds were seen, as to their status the reader is referred to the systematic section:

Phoenicopterus ruber (18)
Tadorna tadorna (26)
Charadrius alexandrinus (109)
Tringa hypoleucos (119)
Crocethia alba (124)
Himantopus himantopus (129)

Recurvirostra avosetta (130) Burhinus oedicnemus (132) Larus genei (139) Gelochelidon nilotica (141) Sterna hirundo (143)

Gardez

During the days May 23–26, 1949 we made an excursion from Kabul to the Gardez district. We drove down the much cultivated Logar Valley to Pul Alam (Hisarik) where the road to Gardez branches off. At first it ascends steadily through a vast steppe area while higher up it crosses a mountain range through Tera Kotal (2880 m.). Near the pass scattered Juniperus polycarpos occur. On having climbed the mountain range the road descends into a system of valleys and leads to Gardez (2350 m.) which is surrounded by a plain. The vegetation and bird fauna of this district corresponds to the situation along the Kabul-Kandahar main road, and just like the latter district it is surrounded by barren desert mountains



Fig. 12. The lake border at Ab-i-Istada (1940 m.). Eastern Afghanistan. The white band is salt incrustations. 9. v. 49.

unknown bird fauna. During our short stay in the pass and in the woods immediately below we saw:

Gypaëtus barbatus (64) Cuculus canorus (162) Motacilla cinerea (220) Phoenicurus ochruros (246) Muscicapa ruficauda (317) Parus melanolophus (322) Emberiza cia (339) Serinus pusillus (344)

Southern Afghanistan

The Kandahar (1030 m.) - Farah (690 m.) area.

On leaving, in a westerly direction, the valley in which Kandahar is situated the traveller reaches the extensive plains which occupy a considerable part of southwestern Afghanistan. The soil consists of fine sand



Fig. 13. Stony desert west of Girishk (appr. 900 m.). Southern Afghanistan. 20. ii. 49.

tinge to the scenery when viewed from a distance. Apart from this the vegetation consisted of scattered dry and thorny plants rarely exceeding a few decimetres in height. Here and there, in the many dried-up river beds, one came across patches of open brush half the height of a man or less. West of Dilaram the vegetation grows richer and one may come across larger stretches with bushy vegetation as shown in figure 14. When we passed the district again in the beginning of May the grass had already assumed a brownish colour and towards the end of June the remainder of the vegetation had also been scorched.

This semi-desert harbours few breeding birds, species as well as individuals. My personal experience in this district is limited to some excursions through it, we did not stay for longer time but to judge from observations



Fig. 14. Small steppe area with low bushes West of Dilaram (appr. 900 m.). Southern Afghanistan. 27. vi. 49.

cultivated land. Of the remaining species only few individuals were seen and Ammomanes only among the foot hills between Farah and Dilaram.

The narrow belts of brush along the permanent rivers and the cultivated areas harbour, quite naturally, a much richer bird fauna. The majority of species occurring here are associated with cultivated areas in most parts of the country, hence it seems unnecessary to list them here. However, it is worth mentioning that our first acquaintance with the two lowland species

Merops superciliosus (181)

Saxicola caprata (257)

was made here, and also that the two following species which only occur in the southern provinces of the country were first seen here:

Pycnonotus leucotis (224)

Turdoides caudatus (275)

On February 23, 1949 we arrived at Salian south of Juwain where we left the main road and drove westwards to the village Baqrabad standing on the river Farah-rud about 8 km. from where it falls into Hamuni-Sabari. We stayed in Baqrabad until March 19 when we had to move to the village Faizabad, a few kilometres higher up the river. Apart from two short interruptions the time until April 21 was spent in this district. Our observations would have benefitted from another fortnight's stay but I had an attack of fever which proved to be malaria and we were forced to retreat to Farah from where we could continue our work already on May 3 but by this time other tasks than the Seistan exploration had to be carried out.

Our research field in Seistan was dotted with extensive ruins of towns and castles which contrasted sharply with the small present-day villages, their miserable mudbuilt huts and the primitive farming. The flourishing culture which once made Seistan a rich and thriving province was suddenly wiped out when, in the 14th century, Timur's armies swept over it; the lack of vigour—and of men—prevented it from ever recovering again. A climatic factor may have contributed to the decline of the Seistan culture, the later centuries may have witnessed a climatic change which led to the progressive disappearance of water from several lake basins in Central Asia. During our travels we had many an opportunity to realize the disastrous importance of droughts and we were told that the preceding three years had been practically without rain; this by itself may not be fatal since under all circumstances the rainfall in Seistan is negligible, far more serious was the fact that at the same time the river supplied very little water or, later in the year, nothing at all, thus endangering the irrigation. In consequence of this everything had dried up, and people fled the district to lead a miserable life in neighbouring towns. The 300 households of Baqrabad had already dwindled to a mere thirty. Fortunately rain appeared again in 1949 and in the river the water rose so as to flood part of the village and the surrounding land.

However, we had also plenty of evidence that the human race itself contributed much to the deterioration. G. P. TATE who travelled in Sei-



n view of Farah-rud where it falls into Hamun-i-Sahari (appr. 500 m.). Scistan. Remains of the tamarisk copse and dune formation are visible. 30, iii. 49.

Juwain and other towns to serve as building material and the poor remains are bound to disappear as fuel, succumb to wind erosion or become buried under sand dunes (Fig. 15).

This was our first disappointment, and the next turned up when we reached the Hamun: the extensive Seistan reed-beds had disappeared and we were facing a one kilometre wide, flat and clayey lake border. Reed-beds were probably still present further south, on Iranian territory, for now and then we saw columns of smoke in this direction which no doubt indicated that reed was being burnt. Later I found a small area with regenerating reed north of the outlet of the river but it was heavily grazed by cattle such that practically nothing was left of the reed-bed of the previous year; this was the situation from the Iranian frontier to the northeastern corner of the Hamun.

In the vicinity of Farah-rud the steppe is more varied than the steppe areas we had seen in other parts of southern Afghanistan. The low lying stretches are dominated by a species of *Salicornia* while a species of *Prosopis* occupies the higher ground and camelthorn the extensive abandoned fields. In the steppe one also comes across areas with scattered dunes up to a couple of metres high; the dune formation starts around low bushes of tamarisk, the roots and branches of which stabilize the dune (the tamarisk scrub mentioned earlier consists of another species).

Migrating birds now and then enlivened the steppe but otherwise the bird fauna was very poor, and the presence of different types of steppe caused no apparent increase of variation. My personal experience was that only two species were characteristic of the genuine steppe, namely:

Alaemon alaudipes (191)

Galerida cristata (198)

The tamarisk scrub harboured the following residents:

Francolinus francolinus (82) Turdoides caudatus (275) Passer moabiticus (368)

Finally, the villages and ruins provided breeding places for:

Athena mastera (166)

were undoubtedly wintering or migrating birds among which the more important were:

Pelecanus onocrotalus (3) Anser anser (22) Tadorna tadorna (25) Anas platyrhynchos (27)

Anas crecca (29) Anas acuta (31) Anas penelope (33) Anas clypeata (35)

Spring migration at the Lower Farah-rud

Since we left Seistan rather early in the year my observations can hardly be expected to provide a complete picture of the spring migration through the province since the latest migrants are missing. Although large concentrations of migrating birds were never seen we got the impression that for some species at least the migratory activity showed a maximum lasting for a very short period. Migration of the following species was observed:

Grus grus (87)
Charadrius dubius (108)
Charadrius alexandrinus (109)
Tringa ochropus (117)
Cursorius cursor (133)
Pterocles orientalis (147)
Apus apus (175)
Merops apiaster (180)
Upupa epops (184)
Calandrella cinerea longipennis (193)
Riparia riparia diluta (201)
Hirundo rustica (205)
Delichon urbica (209)

Motacilla alba dukhunensis (221)

Lanius collurio isabellina (226)

Luscinia svecica pallidogularis (242)
Oenanthe pleschanka (263)
Oenanthe picata (*picata*) (264)
Oenanthe deserti atrogularis et oreophila (266)
Phylloscopus collybita fulvescens (278)
Hippolais caligata rama (301)
Sylvia curruca blythi et halimodendri
(305)
Sylvia nana (308)
Ficedula parva (313)
Remiz pendulinus (324)
Passer domesticus (364)
Passer hispaniolensis transcaspicus

As to the course and sequence of the migration reference is made to the notes on the individual species in the systematic part where also a few other species are mentioned which were only observed once or a few times.

(365)

A total of 91 species were recorded in Seistan.

Herat. The road between Farah and Herat traverses wide alluvial valleys and narrow stony ones in quick succession. Between Shin Dand and Herat the traveller must negotiate a few low ridges which nowhere exceed 1500–1800 m. altitude. The vegetation is sparse throughout, and the surrounding hills seem quite barren. In spring an open grass cover may occur here and there but at least when we travelled through the district everything was scorched. Apart from Shin Dand and the northern vicinity of Farah the cultivated areas were few and far between. Along our route we saw the following species which are characteristic of the virgin steppe or barren hillsides:

Pterocles alchata (145)
Pterocles orientalis (147)
Merops apiaster (180)
Upupa epops (184)
Ammomanes deserti (190)

Calandrella acutirostris (194) Galerida cristata (198) Oenanthe picata (264) Oenanthe isabellina (267) Rhodopechys githaginea (353)

Shin Dand forms part of a vast plain extending east and west and covering an area large enough to make the surrounding mountain ranges barely discernible (Fig. 16). Dotted all over this plain are small villages which keep the bulk of the area under plough. In late June, when we were there, all crops had been harvested a long time ago and the fertile plain seemed just as dreary as the surrounding mountains although some variation was provided by the village trees and the dry meadows, near the river Adraskan, and by some ditches grown with reed-mace (*Typha angustifolia*). We recorded 27 species of birds among which the following, being characteristic of this cultivated area with villages, poplar groves and a river, deserve mentioning:

Coturnix coturnix (83)
Charadrius dubius (108)
Streptopelia decaocto (157)
Streptopelia senegalensis (160)
Cuculus canorus (162)
Alcedo atthis (178)

Alauda gulgula (200) Hirundo rustica (205) Saxicola caprata (257) Acrocephalus stentoreus (294) Emberiza bruniceps (335) Passer domesticus (364)



Fig. 16. The plains at Shin Dand (appr. 1200 m.). Western Afghanistan. 29. vi. 49.

by a distance of 300 km. by road and according to my barometer readings the bottom of the valley rises by 760 m., from 880 to 1640 m. altitude. At Islam Qala one does not get the impression of being in a valley but rather in a vast plain which, although gradually getting narrower, varies a good deal in width. West of Obeh it is still of considerable extent, probably about 15 km. wide while at Kwaja Chisht it is a very narrow valley. Only very small part of this valley is cultivated, the rest being a dry, even plain with the characteristic steppe flora. In places the river is bordered by low and open tamarisk brush (Fig. 17), strips of dry, grassy meadows or, where the river is quiet and along irrigation canals, by narrow reed-beds. The surrounding hills are low, rounded and very barren; the town of Herat with its large gardens and the villages amidst their greenery are the only bright spots of the countryside.



arirud near Herat (appr. 1050 m.). Western Afghanistan. On the left part of the town with gardens. On the right tamarisk copse in the river bed. 4. vii. 49.



Fig. 18. The secondary valley at Obeh, view from appr. 1800 m. towards the Hari-rud Valley. 14. vii. 49.

At greater distance from the river, in the steppe proper, we found:

Chlamydotis undulata (100) Pterocles orientalis (147)
Cursorius cursor (133) Oenanthe isabellina (267)

The birds inhabiting the cultivated land were mostly the species which have already been mentioned from similar habitats although three species occurring here were not seen in Farah and Shin Dand:

Parus major (320) Sturnus tristis (374) Pica pica (382)

Ardewan Kotal

On July 16 I drove from Herat to Ardewan Kotal, 50 km. outside the

Obeh and Kwaja Chisht

A short distance west of Obeh in the Hari-rud Valley a small tributary valley leads up among the northern mountains. At 1820 m. altitude are some hot springs which are supposed to possess curative properties, hence there is a small hotel here far away from the beaten road. We spent the days July 11–18 here exploring the valley (Fig. 18) and its interesting bird life. The variety of habitats comprised a small brook in the bottom of the valley, a narrow border of trees and bushes, mostly willow, plane, small-leaved maple, hawthorn, roses and bramble, and higher up the hillside scattered bushes of *Juniperus polycarpos* which occur to the very ridge at about 2820 m. altitude. This oasis among the barren mountains was inhabited by the following species:

Columba palumbus (154)
Streptopelia turtur (155)
Motacilla cinerea (220)
Lanius collurio (226)
Lanius minor (230)
Cinclus cinclus (233)
Luscinia megarhynchos (241)
Irania gutturalis (245)
Turdus merula (269)
Turdus viscivorus (271)

Myiophoneus caeruleus (272)
Phylloscopus neglectus (279)
Cettia cetti (289)
Sylvia hortensis (303)
Scotocerca inquieta (310)
Muscicapa striata (315)
Carduelis carduelis (346)
Coccothraustes coccothraustes (361)
Pica pica (382)

Corvus corone (387)

The following additional species were found in this valley in association with rocks and mountain slopes:

Hirundo rupestris (203)

Monticola solitarius (254)

Oenanthe xanthoprymna (261)

Oenanthe picata (264)

Sitta tephronota (327)

Emberiza stewarti (336)

Emberiza buchanani (338)

Serinus pusillus (344)

The days July 18–20 were spent visiting Kwaja Chisht higher up the Hari-rud Valley. Here one also finds a secondary valley with a small border of trees but since the entire village transfers its household and home life to this area during the summer we had no opportunity for studying the bird fauna in detail. It was our impression, however, that the fauna was

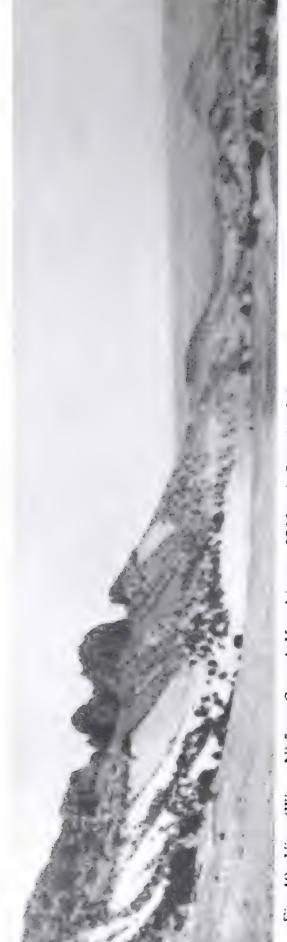


Fig. 19. View (W → N) from Sauzak Kotal (appr. 2500 m.). Stands of Juniperus polycarpos.



Fig. 20. Scenery near Qala Nau (appr. 950 m.). Northern Afghanistan. 23. vii. 49.

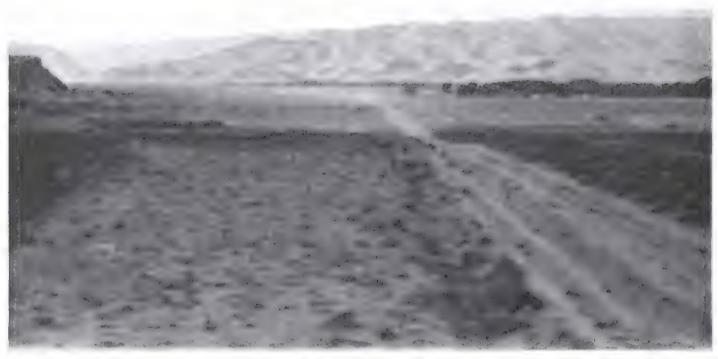


Fig. 21. The valley at Bala Murghab (appr. 550 m.). Northern Afghanistan. 26. vii. 49.

some distance east of Zarmast Kotal which, unlike Sauzak, is shown on most maps.

Ascending among rounded mountains with many cushion plants the road reaches the pass and discloses a wonderful view of the wide valley (Fig. 19) bounded in the north by impressive vertical rock walls with grey and reddish brown as the predominant colours. Tall *Juniperus polycarpos* trees occur in the pass and in places they may even form a partly closed stand which, however, only occupy small areas. Dotted all over the north facing hillsides are solitary, fairly tall junipers. In the pass and its immediate vicinity we found:

Falco tinnunculus (78) Columba palumbus (154) Phylloscopus neglectus (279) Regulus regulus (288)



Fig. 22. Narrow valley at Miana Bam, South of Bala Murghab (appr. 700 m.). Northern Afghanistan. Typical habitat of Oenanthe finschii. 24. vii. 49.

On July 22 we crossed Sauzak Kotal, crossed the wide valley north of the pass and entered the rounded foothills among which Qala Nau is situated at 950 m. altitude (Fig. 20), in a place where several valleys meet. Near the town all the valleys are cultivated and so is part of the surrounding hills but since we were there in late July the harvest was already over and barrenness prevailed, the gardens of the town being the only exception.

The rounded hills with their sparse vegetation of dry and spiny plants are the dominant type of scenery all along the road through Bala-Murghab and Maimana and north to the vicinity of Daulatabad; the only feature subject to variation is the width of the valleys. At Bala-Murghab (Fig. 21) it is very wide and large part of it is cultivated thanks to the abundance of water supplied by the river Murghab. In a few places, e.g. at Miana Bam



Fig. 23. Dunes 25 km. SE of Andkhui. Northern Afghanistan. 30. vii. 49.

has the same character as the southern plain but the proximity of the Qara Qum desert was obvious partly through the fact that we collected *Corvus ruficollis* not recorded with certainty from other parts of Afghanistan and partly because southeast of the town we crossed a 20 km. wide belt of overgrown sand dunes (Fig. 23).

The road continues through the plain from Andkhui through Shibarghan, Aq Chah and Mazar-i-Sharif to Tashkurghan where again it enters the mountainous country and leads to Haibak. We had now entered a district where the bird fauna had been studied by Meinertzhagen (1938).

Our travels which only lasted a short time do not enable us to give an exhaustive account of the bird fauna, furthermore our travel took place in late July when day temperatures about 40° were common and the activity of birds correspondingly law. Disregarding the cultivated land the following list

Several of these species also occurred in the steppe which also harboured the following species among others:

Pterocles alchata (145) Pterocles orientalis (147) Merops apiaster (180) Merops superciliosus (181) Galerida cristata (198) Oenanthe isabellina (267) Corvus ruficollis (388)

Estival migration

It is a well-known fact that immediately after the breeding period the Rosy Pastor migrates south, away from the hot Turkestan steppes, and accordingly I saw large flocks migrating in July. It is however, an open question whether not other birds also leave the warm lowlands early and migrate to the mountains where the climate is more cool. I made some observations which may be taken to support this assumption.

On 25 July, at about 15.00 hrs. I saw 30 Milvus migrans and 2-3 Neophron percnopterus soaring at great height on their migration up through the valley at Bala Murghab. On the following day we came upon a flock of about 100 kites and a few Egyptian Vultures resting—and probably enjoying the shade—in and beneath some trees planted along the road. Considering the small number of kites we usually saw during a day this concentration was remarkable. On July 28 two flocks of 15 and 18 Buteo rufinus sought shade near the brow of a small hill at the road near Daulatabad; and on August 4 several small flocks of Falco naumanni occupied the telephone wires in the valley leading up to Paigah Kotal, between 100 and 200 birds being present. Also concentrations of Coracias garrulus were seen under such circumstances that migration seemed likely. Although the Roller is seen practically everywhere in Afghanistan it seemed more abundant between Bala Murghab and Maimana than I had found it anywhere else, in great numbers it occupied the telephone wires and the occasional trees.

The extent of this presumed migration and the species involved can only be determined through prolonged studies in the same place but the obser-



Fig. 24. The scenery between Unaï Kotal and Panjao (appr. 2900 m.). Eastern Hazarajat. In the distance, about 40 km. away, the Koh-i-Baba range. On the right a small village with its fields extending into the foreground. 11. vi. 49.

where we had our camp at Panjao (2700 m.) during the period June 11–18 and from where we returned along the same route.

Unaï Kotal is surrounded by rounded mountain ridges with sparse vegetation. Still more desolate and barren—if that is possible—is the rolling sea of mountains beyond the pass; with their cover of erosion products the mountains give one the impression of being just as many ranges of stone- and gravel-heaps with occasional rock outcrops. Add to this the considerable elevation and the various minor passes around 3000 m. which must be negotiated in addition to the main pass and one may imagine the magnificent panorama flanked in the north by the Koh-i-Baba Massif with summits above 5000 m. and enousled to a large extent in the

may in favourable places reach a height of about four metres and largely they consist of willow and *Hippophaës sp*.

A bird fauna rich in species or even individuals cannot be expected in this setting, nevertheless we recorded 57 species during our short stay. Along the watercourses we found:

Charadrius dubius (108)

Tringa hypoleucos (119)

Motacilla citreola (219)

Motacilla citreola (219)

Cinclus cinclus (233)

Among these T. hypoleucos and M. citreola were only seen where willow scrub bordered the river. Other inhabitants of the willow scrub were:

Lanius collurio (226)

Luscinia megarhynchos (241)

Luscinia svecica (242)

Saxicola torquata (256)

Cettia cetti (289)

Sylvia althaea (307)

Carpodacus erythrinus (355)

Oriolus oriolus (376)

Pica pica (382)

Some of these species also occurred among trees and bushes at the villages but otherwise the cultivated areas contributed no additional faunal elements except House and Tree Sparrow.

The stony mountain slopes were inhabited by:

Calandrella acutirostris (194)

Phoenicurus ochruros (246)

Monticola saxatilis (253)

Oenanthe xanthoprymna (261)

Sitta tephronota (327)

Rhodopechys sanguinea (351)

Rhodopechys mongolica (352)

On the plateaus, along the ridges and in the passes some of the species just mentioned occurred, and in addition we recorded here:

Eremophila alpestris (197)

Oenanthe oenanthe (262)

Oenanthe deserti (266)

Oenanthe isabellina (267)

Carduelis flavirostris (347)

Petronia petronia (362)

Montifringilla nivalis (369)

Montifringilla theresae (370)

The autumn migration through the Bamian district.



ian Valley (appr. 2500 m.). Central Afghanistan. On the left the true valley bottom; on the right one of the plateaus which occupy a considerable part of the valley. 7. ix. 49.

My observations of the bird fauna of Shibar Kotal during the breeding period and of the Bamian Valley and the elevated passes and valleys west of Shibar Kotal were restricted to a few days but as regards the dominant species outside the cultivated areas the fauna was little different from what we saw between Unaï Kotal and Panjao except that *Tetraogallus himalayensis* and *Carpodacus synoicus* which we found breeding in the Bamian area were not recorded in the former district.

On September 5 we returned to the Bamian Valley and remained there until October 18 to make observations on the autumn migration which however, turned out to be a disappointment, only traces of visible migration occurred here, and also the number of resting birds was very low, although with a few exceptions.

The main course of the Bamian Valley is east-west. The central part with the gigantic Buddha statues is situated at an altitude of appr. 2550 m. The bottom of the valley is fairly wide here and much land is cultivated, also on the immense alluvial plateaus which from the southern mountains extend into the valley (Fig. 25). The hills are barren and with an exceedingly sparse vegetation. The ridge immediately north of Bamian reaches 3950 m. while, in a southerly direction, the bordering Koh-i-Baba, about 20 km. away, rises to 5000 m. height. In the western end of the valley tributary valleys lead down from Nil-Kotal and, in the north, from Aq-Ribat. Towards the east the Bamian River joins the river coming down from Shibar-Kotal and as a single river they penetrate the Hindukush Range through a narrow canyon, Darra-i-Shikari. During our stay we lived in the Bamian Hotel, near the edge of the plateau opposite the buddhas, and from where we had a magnificent view of the valley which enabled us easily to follow the movements of larger birds through the valley. When not on excursions to the nearby valleys and passes I made an inspection round every morning and afternoon along one particular route which went through a most varied pattern of habitats. These regular walks gave me an improved possibility for judging the variation in numbers of resting birds.

from the northern ridge several resting passerines were observed, often at considerable altitude, there was thus some evidence that the migration passed the mountains on a broad front without concentrating in the lowest passages or valleys. Another factor which may have contributed to the small number of resting birds may be sought for in the fine weather which at no time can have interfered with the smooth progress of the migration. The sun was out and the sky clear practically all the time, only one day had high clouds partially covering the sky and a couple of days a little fog in the valley but none of these days showed a change in the number of resting birds.

The only birds present in fair numbers were:

Anthus trivialis sibiricus (213) Motacilla flava beema (218) Motacilla alba dukhunensis (221)

Four species of ducks were seen but only in moderate numbers. There are grounds for assuming, however, that the migratory activity increases later in the autumn since small artificial lakes with decoy ducks had been made in various places, thus it can be inferred that there is so much migration that it plays a certain role for the local hunters.

Even the migration of birds of prey was not much noticeable in the valley although varying numbers of the following species rested here:

Milvus migrans lineatus (46) Accipiter nisus nisosimilis (48) Buteo rufinus (49) Circus macrourus (66)

The following are examples of the many passerine birds which occurred in low numbers but which by their presence showed that the migration passes through the valley

Galerida cristata (198)
Anthus c. campestris et griseus (211)
Anthus trivialis schlüteri (213)
Luscinia svecica saturatior (242)
Saxicola torquata maura (256)

Phylloscopus inornatus humei (283) Acrocephalus dumetorum (296) Acrocephalus agricola (297) Hippolais caligata rama (301) Sylvia communis icterops (304)

IV. Taxonomy and field data

A few comments are necessary in order to explain recurrent features of the following systematic account of the material:

Sex: The two figures given immediately after the symbol of a male bird indicate width and length of the larger testicle. In the text the testes are often stated to be "injected" which means that the superficially visible vessels were dilated and full of blood; when this is the case the testes are in the active stage. It is also mentioned whether the vesiculae seminales were enlarged in which case the cloacal protuberances are very prominent in many passerine birds. The presence of this character indicates that the bird is in breeding condition (WOLFSON 1954).

The symbol indicating a female bird is followed by two figures or only one; two figures indicate length and width of the left ovary and one figure the diameter of the largest follicle.

Weights (we.): Unless otherwise stated all weights are in grammes.

The wing (wi.) is measured by stretching it out on the ruler until it is quite flat, and thus the longest possible measurement is obtained.

The tail (tl.) is measured with one end of the dividers pressed against the skin between the central pair of rectrices, while the other is passed to the tip of the longest tail feather.

The tarsus (tr.) is measured from the middle point of the joint between tibia and metatarsus (behind) to the front of the junction of metatarsus with the base of the middle toe.

The bill is measured with dividers either from the skull (bs) or from the nostril (bn) to the tip of the bill.

All measures of length are in millimetres.

Age: Where no age is given the specimen is assumed to be adult. The term subadult refers to specimens in which moulting of the juvenile plumage has taken place but which still show characters by which they can

Material not used

A fairly large material of stomach contents and endocrine organs was collected but not used for the present publication, and most likely I shall never get the opportunity of working up this material.

Stomach contents: When possible the contents of oesophagus and ventriculus were dried, and it is still kept in this condition. For the larger birds, especially birds of prey, this procedure was not feasible and only notes on the contents were made. In case any institution is interested in this material or part of it it will be available on application to the Zoological Museum, Copenhagen.

From a very large number of individuals the following glands were fixed in Bouin's fixative: gonads, adrenals, thyroid and hypophysis. In other cases only some of these organs were kept. For each species it was attempted to cover the different stages as completely as possible. If this material or part of it is desired as a supplement to current research application should be made to: Institut for sammenlignende anatomi, Universitetsparken 3, Copenhagen Ø.

With a view to anatomical studies several species were kept in toto or the body only. This material as well as the skins are deposited in the Zoological Museum, Copenhagen.

(3)1). Pelecanus onocrotalus Linné – White Pelican

The White Pelican is a passage migrant in southern and western Afghanistan. Observations by Cumming (1905: 696) and by YATE (1900: 85) make it possible that some may winter in Seistan.

In March, 1949, I found numerous resting pelicans in Hamun-i-Sabari. During our visits on February 25 and March 2 and 4 to the estuary of Farah Rud we still did not see any, but on the 7th we saw here a densely packed flock of more than 200 individuals. Spread over the visible part of the Hamun smaller and larger flocks were further observed. All in all several hundred birds were seen. On the 9th we visited the place again and found about the same number, but on the 18th there were only eight

visit the Hamun but stayed for another fortnight at Faizabad, not far from the Hamun, without seeing more pelicans.

The pelicans like all the other birds in the Hamun were very wary and difficult to approach as there was no cover. There can be no doubt, however, that the greater part, or presumably all of the observed birds were *Pelecanus onocrotalus*. When the light was favourable the beautiful rosy colour of the plumage could be seen in several of the birds. The colour of the beaks seemed to be red as in the Stork. In some individuals, however, no rosy colour could be seen, the plumage was darker and the beaks were also darker, not red. There was no difference in size in these two colour types. The darker individuals were presumably subadult, non-breeding birds.

(4). Phalacrocorax carbo sinensis (Shaw) - Common Cormorant

The Common Cormorant presumably breeds in Afghanistan although there is no proof hereof. In July 1948 I observed it several times in Badakhshan along the Kokcha River from an altitude of about 200 m. down to between Jurm and Faizabad, where on the 12th eight were sitting on a rock wall at the river. Nesting places, however, were not to be seen. —On September 28, 1949, one was seen on a lake at Band-i-Amir in Central Afghanistan.—During the stay from the end of February to the middle of March, 1949, on the lower Farah Rud in Seistan I saw sometimes single birds or a few together at Hamun-i-Sabari or along the Farah Rud. On March 7, however, a flock of 30 flew over the Hamun, and on April 17 at Faizabad a flock of 12, which disappeared in the direction due NNE. Sarudny (1900: 109) found this cormorant a common breeding bird in the Iranian parts of Seistan.

(7). Ardea cinerea cinerea Linné - Common Heron

During our stay in Seistan we frequently saw from March 7 to 30, 1949, the Common Heron at Hamun-i-Sabari. As a rule there were only a few, but on the 30th we counted 30 within a short distance. On the 29th six birds, on April 10 a single passed over Faizabad. Nothing seemed to suggest

saw only two during our stay in Seistan, on March 12, 1949, at Baqrabad. On April 7 and 30, 1949, respectively, one and two individuals were observed at the town Farah.

(9). Egretta alba alba (Linné) - Large Egret

On April 6 and 30, 1949, I saw one single Large Egret on Farah Rud near Farah.

(11). Nycticorax nycticorax nycticorax (Linné) - Night Heron

The Night Heron is a breeding bird and winter visitor in Afghanistan. In the southwestern part of the country along the river at Farah I saw one adult and two juvenals in the evening of the second May, and on June 30 two adults in a willow scrub at Shin Dand. In the southern part on May 5 I saw four individuals above a small wooded island in the Helmand at Lashkari-Bazar, south of Girishk. In the evening of May 20, 1949, finally, two flew over Kabul. Breeding places were never found.

(12). Ixobrychus minutus minutus (Linné) – Little Bittern Faizabad, Seistan

17. iv. 49. ♀ 3 we. 108 wi. 149

Panjao, Central Afghanistan

15. vi. 49. Q 3 we. 131 wi. 148

Only one specimen of the Little Bittern has previously been recorded from Afghanistan. The female listed above from Faizabad was the only one I observed in Seistan, it was collected on the river bank where on the same day at several places I found foot prints which may have been of this species, so several birds had probably rested there during the night.

—On June 29, 1949, I flushed a little heron from a pool in a willow scrub at Shin Dand. It was presumably of this species.—The female collected on June 15 at Paniao in Hazaraiat was the only one seen there. It perched in

(15). Ciconia nigra (Linné) - Black Stork

On June 11, 1949, I saw a Black Stork in one of the narrow desolate valleys between Farakulum and Panjao in eastern Hazarajat. The altitude was 2600 m. When we returned on the 18th one was seen again in nearly the same place. On the 12th Madsen saw one in a willow scrub at Panjao. – Three birds were fishing on July 19, 1949 in a small stream in the Hari Rud Valley at Kwaja Chisht. – In the Surkhab Valley below Doab one was seen on August 7.

There were only two earlier records from Afghanistan. My observations, of course, do not prove that it breeds in the country for all the birds observed may have been non-breeding summer visitors. According to Ivanov (1940: 40), however, it breeds in southern Tadjikistan, just north of the Afghan border and in fairly the same kind of habitat. The nest is there sometimes placed on rocks or conglomerate walls.

(17). Platalea leucorodia leucorodia Linné - Spoonbill

On May 22, 1949, MADSEN saw two newly killed spoonbills for sale in the bazar of Kabul.

(18). Phoenicopterus ruber roseus Pallas – Flamingo

Ab-i-Istada, E Afghanistan

9. v. 49 Q 3 wi. 400 tr. 280 bs. 123

Babar the Great (1483–1530) found "... not ten thousand or twenty thousand, but absolutely beyond computation ..." of Flamingoes in the breeding season at Ab-i-Istada, a lake east south east of Mukur, between Kabul and Kandahar. On July 17 Akhtar (1946 and 1947) visited this locality where he found the Flamingo still breeding. A colony with hundreds of eggs but still no young was found, out on a small island.

On May 9, 1949, we visited the lake for a few hours. All in all we saw only between 50 and 100 Flamingoes. About a dozen birds were standing on the beach of the small island, where I found the cone-shaped nests from the previous year in the central higher part of the island. They were about

wing. They were undoubtedly Grey Lag Goose. SARUDNY (1900: 105) says it is a resident in the Iranian Seistan where it nests in the neizar. Some notes by AITCHISON (SHARPE 1889: 93) and CUMMING (1905: 697) indicate that it breeds or had bred also in the Afghan part of Seistan.

On March 4 I saw, besides the Grey Lags a large flock of another grey goose which was much darker than the first mentioned. In the flat barren country I could not get near enough to the birds to identify them. It possibly was *Anser albifrons* but it may just as well have been *Anser fabalis*. However, this species so far has not been recorded from Afghanistan.

(25). Tadorna ferruginea (Pallas) - Ruddy Sheldrake

On March 24, 1949, I saw twice one single Ruddy Sheldrake at the Hamun-i-Sabari where SARUDNY (1900: 105) says it is a rather common resident in the Iranian part.

(26). Tadorna tadorna (Linné) - Sheldrake

CUMMING (1905: 697) states that the Sheldrake is a common resident in Seistan, where on March 18 and 24, 1949, I saw two flocks each of a dozen individuals at Hamun-i-Sabari. – During our short visit on May 19, 1949, to Ab-i-Istada we saw several Sheldrakes which occurred in pairs or in small flocks of about a dozen birds. When Akhtar visited this locality on July 17, 1947, he saw "A big goose with nine young" (1947: 311), and his description of the young makes it probable that it was either *T. tadorna* or *T. ferruginea*. This latter species, however, we did not observe there, so most likely it was *T. tadorna* which he found breeding. – On January 12, 1948, I saw a newly killed Sheldrake for sale in the bazar of Kabul.

(27). Anas platyrhynchos platyrhynchos Linné - Mallard

During the first half of March 1949 we made some excursions to the Hamun-i-Sabari, where we saw several ducks but they were very wary and always so for away that an identification was not possible. On the

The beginning of the autumn migration 1949 was observed at Bamian but very few Mallards were seen: on October 3, 13 and 14 one or two individuals, and ten on the 17th. On September 28 we made a trip to Band-i-Amir, west of Bamian, where we found several ducks of which a few were Mallards.

This bird was rather often sold in the bazar of Kabul during the winter 1947—48. On May 20, 1949, I saw three in female plumage on the river inside this town.

(28). Anas querquedula Linné - Garganey

Bamian, Central Afghanistan

8. ix. 49. 3° $6 \times 1^{1}/_{2}$ wi. 196

SARUDNY (1900: 103) states that the Garganey is a scarce breeding bird in the Iranian part of Seistan. From the Afghan part, however, it does not seem to have been recorded, and I never saw it there during the early spring of 1949. During the autumn migration I observed from a single up to a dozen on September 7, 8, 9, and 12, and on October 7 and 11 at Bamian in Central Afghanistan.

(29). Anas crecca crecca Linné - Teal

Hamun-i-Sabari, Seistan

7. iii. 49. 9.13×5 wi. 182

Bamian, Central Afghanistan

20. ix. 49. \bigcirc 12×5 — 177 we. 234, juv.

CUMMING (1905: 697) supposes that the Teal is a breeding bird in Seistan where we found it to be the dominant species among the rather large flocks of ducks which we observed from the end of February through March in the estuary of Farah Rud. On April 6 a flock of half a dozen flew up the river at Farah.

The spring migration 1948 was studied in Nuristan where I saw several flocks from March 1 to April 22 along the Pech River. These migrants had

(31). Anas acuta acuta Linné - Pintail

In March, 1949, the Pintail was very common on Hamun-i-Sabari where it was second in number to the Teal. By the end of the month it increased considerably in number. – On March 21, 1948, I saw a single male on the Pech River in Nuristan. This was the only individual observed during all the spring.

On September 28, 1949, I found 100–200 individuals on the beautiful lakes at Band-i-Amir, west of Bamian in Central Afghanistan. Until then I had observed no migration at Bamian but a few ducks on October 9 and 11 presumably belonged to this species.

(33). Anas penelope Linné - Wigeon

Bamian, Central Afghanistan

15. x. 49. \bigcirc 13×6 wi. 238

On March 24, 1949, I saw a dozen Wigeons on Hamun-i-Sabari. The specimen listed above was given to me by a hunter who had just shot it at the river. I never saw it myself at Bamian.

(34). Anas strepera Linné - Gadwall

Gusalek, Nuristan

26. iii. 48 3 10×5 wi. 263

On March 26, 1948, I saw a flock of 2 males and 3 females, and a pair along the Pech River at Gusalek, Nuristan.

(35). Anas clypeata Linné – Shoveller

On February 17, 1949, I saw a flock of a dozen Shovellers along the Tarnak River, north of Kandahar, and on March 2 and 24 a few on Hamun-i-Sabari.

(40). Bucephala clangula clangula (Linné) - Goldeneye

MADSEN saw a few Goldeneyes on March 7, 1949, in the estuary of Farah Rud, Seistan.

(42). Mergus albellus Linné – Smew

on the upper side of the wing (? shoulder) and black tipped primaries. The two other were greyish brown. The flight was fast, gliding, and reminiscent in some way of the flight of gulls or terns. Staying a few hundred meters up the hill side I could look down at the birds which I had in very fine light. I think there can be no doubt of the identification of the birds as two adult and two juvenal Black-winged Kites.

The occurrence of this family might suggest breeding in Nuristan. On the other hand, I saw the species only on this single occasion although it was close to our camp where we stayed from March 31 to May 5. I think it more likely, therefore that the birds were post breeding stragglers which may just as well have come from the not very remote breeding places in India as from a breeding place in Nuristan.

According to Whistler (1945: 300) a specimen was collected in Afghanistan by Griffith and another was obtained by Captain Hay at Kabul. Ivanov (1940: 59) mentions a male which was collected on April 19 at Termes in Tadjikistan, just north of the border to Afghanistan. But also in that country the status is uncertain.

(46). Milvus migrans - Black Kite

- a. Milvus migrans migrans (Boddaert)
- b. Milvus migrans lineatus (J. E. Gray)
- a. Baqrabad, Seistan

16. iii. 49.
$$332 \times 13$$
 wi. 448 17. iii. 49. 332×13 wi. 448 — 438

Herat, W Afghanistan

10. vii. 49.
$$3 \cdot 12 \times 6 \quad -(441)$$

Obeh, W Afghanistan

b. Bamian, Central Afghanistan

10. ix. 49.
$$\bigcirc$$
 16 \times 5 — 465 juv.

The specimens of series (a) are all true nominate migrans. The young female from Bamian represents the very characteristic lineatus.

The only observation on the breeding is of a nest in a conglomerate wall seen on July 6, 1948, near Iskan in the Kokcha Valley, Badakhshan. The contents of the nest were not to be seen.

The Afghan population is partly migratory; some individuals are to be found at all seasons, for from the middle of December 1947 to the middle of January 1948 I frequently saw single individuals in Kabul or its vicinity, and even in the last half of January 1949 after a period of very severe frost some remained there.

My observations on the spring migration are rather scanty. During our stay on the lower Farah Rud from February 23 to April 21 we often noticed a few Black Kites during the period from March 5 to April 10, 1949. These birds may have been migrants but, on the other hand, the gonads were rather enlarged in the two birds collected. On April 11 and 30, 1948, single birds were observed at Wama in Central Nuristan. These were probably migrants for the species seems not to breed in this part of Nuristan.

On July 25, 1949, about 3 p. m. 20–30 kites together with a few Egyptian Vultures circled high over the valley at Bala Murghab in Afghan Turkestan. They followed the valley to the south, towards the higher mountains. The next day we veritably drove into a party of about one hundred individuals which perched in some trees along the road. The kites may have stayed there for some days for there were many moulted feathers and much manure under the trees. The kites were also in this case accompanied by some Egyptian Vultures. The few trees along a part of the road were the only shelter against the burning sun which could be found within a wide range. These observations may show that a summer migration takes place in Afghan Turkestan away from the extremely hot lower parts up to the mountains with a more pleasant climate.

No autumn migration of *M. m. migrans* was observed. During our stay at Bamian from September 6 to October 13, 1949, only a single bird occurred, namely on September 6. From the 9th to the 12th, however, a few *M. m. lineatus* passed over. They were rather easily identified by the dark

Haibak, N Afghanistan

2. viii. 49.
$$\bigcirc$$
 7×3 we. 227 wi. 217

All these birds were moulting the wing feathers and—with one exception—also the tail feathers. In two of them growing body feathers were noticed. The iris was orange coloured.

I have not been able to compare them with specimens of *cenchroides* (type locality Aoulië-Ata, Turkestan) or *chorassanicus* (type locality Makhtoum-kala, Transcaspia). This last name, however, seems to be a synonym of *cenchroides* (HARTERT, Ergänzungsb. p. 419).

One stomach contained grasshoppers, another grasshoppers and rodent hairs.

I collected the Shikra only in northern Afghanistan. Besides the three specimens collected at Qaisar we saw a fourth individual. They were roosting in some trees along the road. The next two specimens in the list give all my further records from northern Afghanistan. South of the main mountain range I saw on July 5, 1949, a very pale *Accipiter* at Herat, it probably belonged to this species.

(48). Accipiter nisus nisosimilis (Tickell) – Sparrow Hawk Pashki, Nuristan

11. v. 48
$$3$$
 7×3 we. 136 wi. 207 juv.

18. v. 48.
$$3$$
 8×4 - - - 213

Bamian, Central Afghanistan

23. ix. 49.
$$\circ$$
 — — 242 — 248

12. x. 49.
$$\bigcirc$$
 10×3 - - - 245

The specimens from Bamian as well as those from Nuristan agree in colour with Scandinavian breeding birds. They are, however, larger than nominate *nisus* for which the Handbook of British Birds gives a wing length of 190–205 mm. in males and 230–240 mm. in females. One might have expected the subspecies *melanoschistus*, with the dark upper parts,

During the breeding season I observed the Sparrow Hawk only at Pashki in Nuristan. It was rather common there in the coniferous forests and it was also in some cases seen even above the tree limits. Lower down in the Pech-Parun Valley I saw a single one on April 11 at Wama. This may have been a migrant.

On January 19, 1948, I saw at Kabul a male and a female Accipiter chasing each other, and on January 14, 1949, a female was sitting for some time in a tree near our headquarter in that town. I think in both cases they were A. nisus.

From September 15 to October 13, 1949, I saw daily a few Sparrow Hawks in the Bamian Valley but anything like a mass migration never occurred. The birds observed were mostly resting in some poplars along the river.

(49). Buteo rufinus rufinus (Cretzschmar) – Long-legged Buzzard Obeh, W Afghanistan

16. vii. 49.
$$3$$
 6×3 wi. 434

Andkhui, N Afghanistan

28. vii. 49.
$$3 \times 3 - 425$$

 $7 \times 2 - 435$

Paigah Kotal, Haibak, N Afghanistan

4. viii. 49.
$$\bigcirc$$
 20 \times 6 wi. 450

Bamian, Central Afghanistan

8. x. 49.
$$\eth$$
 6×2 wi. 436
11. ix. 49. \heartsuit 11×6 — 460
12. ix. 49. \heartsuit — 429
15. ix. 49. \heartsuit 15×6 — 450
22. ix. 49. \heartsuit 10×4 — 462
25. ix. 49. \heartsuit 10×7 — 456
11. x. 49. \heartsuit 16×5 — 487

Ghazni, E Afghanistan

24. vi. 49.
$$39 \times 5 - 442$$

Iris pale yellow-brown. Cere light sulphur. Feet darker sulphur.

Five of the 12 specimens listed above belong to the red-brown phase,

mountain range. It sat on a telephone pale and was the only one seen. Nothing indicated that it was on its breeding ground. The testes were rather small.

In Nuristan I observed it twice in the cedar forests above Pashki. On May 16 one was persecuted by two crows, and on the 27th I found in a narrow cleft a large, inacceptible eyrie on a rock-wall. It was apparently occupied but no bird was seen. When I visited the place again on June 4 a Long-legged Buzzard was circling over the rock-wall.

Two seen on July 12, 1948, between Faizabad and Barak in Badakhshan may also have been on the breeding grounds. One of them sat screaming high up on a rock while the other was circling above it.

On July 16, 1949, I collected the male listed above, in the main Hari Rud Valley at Obeh where it flew around and settled on hillocks in the fields. Two days later I saw another individual at the same place. These birds may have been migrants for when on July 28 we travelled from Maimana to Andkhui in northern Afghanistan, we observed a flock of over a dozen Long-legged Buzzards which sat on the ground in the shadow of a small slope where they had sought shelter against the burning sun. I think, as in the case of *Milvus migrans*, that these birds were on summer migration away from the very hot lowland to a more tolerable climate at higher altitudes. Besides the flock south of Andkhui we saw during our trip through northern Afghanistan only the female collected on 4 August 10 km. southeast of the Paigah Kotal, between Haibak and Pul-i-Khumri.

During the autumn of 1949 we studied the migration in the Bamian Valley, Central Afghanistan. From our arrival on September 6 to about the middle of the month I saw daily up to half a dozen individuals, from then on until the middle of October merely one to two on a single day. These were probably resting birds. On September 13, however, when I stood at an altitude of about 2800 m. in a narrow side valley, four Long-legged came rushing down from high up the valley, passed over-head on stiff half-closed wings, and continued down towards the Bamian Valley. These were probably migrating birds which had just crossed the main mountain

Wama in the Pech Valley, Nuristan, I saw a bird of prey on several occasions between March 20 and April 24, 1948, which I presumed to be the light phase of Booted Eagle. It was of the size of a *Buteo*, the under parts dirty white, the primaries dark, and the tail without bars. On April 24 one performed nuptial flight with headlong dives and looping, crying *djüˈdjü* or *gjik-ˈgjik*. Its breeding in Nuristan is to be expected, for it is breeding in Kashmir where Scully (1881: 420) found it to be a common breeding bird in Gilgit and Fulton (1904: 59) collected on May 11 a male at Drosh in Chitral, just at the east border of Nuristan.

(53). Aquila chrysaëtos chrysaëtos (Linné) – Golden Eagle Mukur, E Afghanistan
25. vi. 49. 3 6×4 wi. 613 tl. 310

This specimen is an adult without white in the tail. As it is neither darker nor larger than Scandinavian birds, I refer it to nominate *chrysaëtos*, not to *daphanea* for which subspecies HARTERT (2: 1091) gives a wing length of 640–660 in males. It perched on a telephone pole and was the only one seen there.

I observed eagles on several occasions but since I was not sufficiently familiar in the field with the eagles which may occur in Afghanistan I felt rather uncertain about my identifications. I always wrote down the characteristics of the individuals observed and with this control I hope that my observations are not erroneous.

The characteristic juvenal Golden Eagle with a white patch at the base of the primaries and a white tail with a broad, dark terminal band was seen: on May 10, 1949, south of Ghazni; on March 3, 1949, at Baqrabad, Seistan; on October 3, 1949, at Bamian; on April 3, 1948, at Wama, Nuristan; and on May 29 and June 6, 1948, at Pashki, Nuristan. The young eagle seen at Baqrabad struck a flying crane which fell to the ground as if hit by a bullet. It was quickly picked up by a soldier who cut its throat so that the Moslim, with a clear conscience, could eat it for his dinner. At

plumage except the very dark colour. They were presumably Imperial Eagles which Swinhoe (1882: 99) found common at Kandahar throughout the winter.

(56). Aquila nipalensis (orientalis Cabanis) - Steppe Eagle

On October 6, 1949, a very dark eagle was soaring for some time over one of the high-lying valleys between Bamian and Band-i-Amir. The altitude was about 3000 m. On the under side of the wing there was a very distinct light bar running in an arch from about the carpal joint to the base of the wing. According to Donald (1952: 842) this is a distinctive feature of nipalensis.

(57). Aquila clanga Pallas - Greater Spotted Eagle

On October 10–12, 1949, I saw daily at Bamian one or two very dark eagles with yellow feet and a narrow, white patch on the rump or formed by the upper tail coverts. I think they were adults of A. clanga. One was seen feeding on a carrion together with Gyps fulvus and Aegypius monachus.

(59). Haliaeetus albicilla (Linné) - White-tailed Eagle

On March 4, 1949, I saw, at a long distance over the Hamun-i-Sabari, an eagle with a short, white tail and a light head. The identification as a White-tailed Eagle can hardly be wrong.

(60). Aegypius monachus (Linné) - Black Vulture

I never succeeded in collecting this species but among Griffon Vultures feeding on carrions I saw in some cases a larger and very dark, nearly black, vulture with less conspicuous ruff, these vultures were undoubtedly *Ae. monachus*. Two individuals together with about 30 Griffon and a few Egyptian Vultures were seen on May 7, 1949, in the Tarnak Valley about 30 km. north of Kandahar. Single individuals occurred: on May 23 in the mountains north of Gardez, on March 13 near Hamun-i-Sabari, on June 6 in the Shahidan Kotal, 2900 m., and on October 3 and 10 at Bamian.

ensis, which may be conspecific with fulvus, is said by STUART BAKER (5:14) and KIRK SWANN (1:29) to breed as far west as Afghanistan; there seems, however, to be no authority for this statement.

The Griffon Vulture is not very numerous in Afghanistan, but I found it in most parts of the country that I visited.

Eastern Afghanistan: On January 13, 1949, two in the Lataband Kotal east of Kabul; on May 26 three were soaring over a mountain top near Tera Kotal north of Gardez; in two places below the peak were two eyries (of the vultures?). Nuristan: Single individuals were seen on June 5 and July 24–25, 1948, at Pashki; on June 19 at Stiewe; and half a dozen on August 4 at Gusalek.

Southern Afghanistan: On February 20, 1949, two in the steppe between Girishk and Dilaram; and on May 7 about 30 in the Tarnak Valley.

Central Afghanistan: On June 6, 1949, six at an altitude of 2900 m. in the Shahidan Kotal west of Bamian; from the beginning of September and to the beginning of October single or a few adults and young were observed on several occasions in the Bamian Valley.

Afghan Turkestan: On July 30, 1949, four between Shibarghan and Aq Chah, and on August 1 four between Tashkurghan and Haibak.

(63). Neophron percnopterus percnopterus (Linné) – Egyptian Vulture Gusalek, Nuristan

Darra-i-Shikari

4. vi. 49.
$$Q 20 \times 11 - 515$$

In the female the oesophagus was brimful of tadpoles. In the male from Gusalek the bare skin of the neck was orange yellow. The bill also yellow but with a reddish tinge; the tip of the bill whitish.

Nominate percnopterus is distributed from the Mediterranean countries east to Kashmir and northwestern India, while ginginianus, according to the literature, inhabits the rest of India and Himalaya. Afghanistan, there-

in the specimen from Darra-i-Shikari, but in the dry skin the distal part is a dark horn and the basal part a little darker yellow than in the Gusalek bird, and the colours fully agree with those in other skins of nominate percnopterus.

The Egyptian Vulture breeds undoubtedly in many parts of Afghanistan since in the breeding season it is found nearly everywhere except in the highest parts of the country. During the winter parts of the Afghan populations migrate down to northwestern India.

Eastern Afghanistan: On February 28, 1948, I saw several at Darontah near Jalalabad, but none was noticed the next days when we travelled up the Kunar and Pech valleys to Gusalek where we stayed from the 24th to March 28th. During that time birds were seen only occasionally. I observed a few from March 31 to May 5 at Wama, our next camp higher up the Pech Valley, and none during the rest of the spring and summer in the more central parts of Nuristan. When we returned to Gusalek in the first week of August I saw rather many of the Egyptian and Griffon Vulture, presumably because a severe cattle disease had claimed many victims. — During the winter 1947—48 I saw only a single individual in Kabul and its vicinity (December 26), and none from medio January to medio February 1949. During May and June, 1949, it was common, and from October 23 to November 13 I observed it occasionally. — Other observations from eastern Afghanistan are Tera Kotal and Gardez on May 23 to 26, 1949.

Central Afghanistan: During the first week of June, 1949, I saw it in several localities, namely: Ghorband Valley, Darra-i-Shikari, Bamian, Shahidan-Kotal (at an altitude of 2900 m.), and on the 10th and 11th two single birds between the Unaï Kotal and Panjao in eastern Hazarajat, but at Panjao none (June 12–17). When we returned to Bamian in the autumn I saw several in this valley during the first part of September, but none later. I think that they followed the large sheep herds which at that time moved from the highland to the winter quarters at Jalalabad or as far as Peshawar.

around Herat. We also saw a few single birds and pairs at Obeh and at Kwaja Chisht higher up the Hari Rud Valley.

Northern Afghanistan: It is my impression that the Egyptian Vulture is more numerous in Afghan Turkestan than in other parts of the country. During the last week of July and the first of August I made the following observations: Sauzak Kotal, northeast of Herat, two pairs; Qala Nau, several adults and juvenals; Bala Murghab, a few over the valley, two soaring high up in the air together with about 30 Black Kites, disappearing up the valley; Bala Murghab-Maimana, besides single birds, about 20, most of them adults, on a refuge dump near a large village, and two in a flock of 50 to 100 Black Kites; Andkhui, a few adults and juvenals; Andkhui-Mazar-i-Sharif-Tashkurghan, occasionally single adults and juvenals; Haibak, rather common, up to a dozen adults and juvenals at the same time soaring over the town or sitting on rock walls; Danaghori Plains, several; Pul-i-Khrumri-Doab, a few seen.

Badakhshan: In the beginning of July 1948 we crossed the Hindukush and travelled down the Kokcha Valley where we saw the first Egyptian Vulture between Kachari and Parwara at an elevation of about 2200 m. From there and down to Faizabad it was rather common. I saw a pair near a niche in a conglomerate wall where they presumably had their nest. It was observed also at Zebak.

(64). Gypaëtus barbatus aureus (Hablizl) – Bearded Vulture Gusalek, Nuristan

13. iii. 48. $\sqrt[3]{23 \times 14}$ we. $4^{1}/_{2}$ kg. wi. 845

Wama, Nuristan

5. iv. 48 3 -48/4 -

Iris light sulphur. Sclera blood-red. The wing span of the bird from Gusalek was 265 cm. The intestinal canals full of bone pieces. The testes were injected¹) in the specimens collected on March 13.

Both specimens are adult. I have not been able to compare them with material from other parts of Asia, but most authors recognize only the

It was common in the Pech-Parun Valley in Nuristan, especially around the lower camp at Gusalek and Wama where single birds or a few together were daily seen patrolling the mountain slopes from the bottom of the valley to well over the tree limit. I have also several observations from Pashki and a few from Stiewe in the higher parts of the valley.

In the central ranges I saw two on June 11, 1949, and one the 12th, at Panjao in eastern Hazarajat, and during our stay at Bamian from September 6 to October 17 one or two individuals were often seen in the valley as well as at altitudes of 3500 m. There was no change in their frequency during this period. Single birds were observed further west at Obeh (a juvenal, July 13), Ardewan Kotal (July 6), and Shin Dand (June 30).

During several trips through southern Afghanistan we never saw this vulture again during our stay in Seistan and Farah, and during the long drive in northern Afghanistan from the Sauzak Kotal over Andkhui, Mazar-i-Sharif and Haibak to Doab. Only once I saw it north of the main mountain range, viz. on July 16, 1948, south-west of Sanglich in Badakh-shan at an altitude of about 3500 m.

(66). Circus macrourus (Gmelin) - Pallid Harrier

Pashki, Nuristan

Bamian, Central Afghanistan

10. ix. 49.
$$3 6 \times 1 - 329$$

20. ix. 49.
$$3 \cdot 6 \times 2 - 340$$

21. ix. 49.
$$3$$
 4×2 — 345

Dilaram, S Afghanistan

3. iv. 49.
$$3 \times 5 - 339$$

 $3 \times 2 - 310$

Faizabad, Seistan

The female collected on March 10 is adult, all the other specimens are juvenals or subadults. Those from the spring are in badly worn plumages.

The Dellid Herrion is a masses misment and minter visitor in Africani

The migration through southwestern Afghanistan seems to be rather slight for I observed only the specimens listed and three single males which, however, may have been *C. macrourus*. They occurred on March 24 and 29 on the lower Farah Rud and on April 6 at Farah.

(68). Circus aeruginosus aeruginosus (Linné) - Marsh Harrier

Chashma-i-Sher, N Afghanistan

5. viii. 49. 9.8×3 wi. 407 juv.

Bamian, Central Afghanistan

6. ix. 49. 3 — 388 juv.

The Marsh Harrier is a local breeding bird. The only place where I think I saw it on the breeding ground was in the large reed beds at Chashma-i-Sher between Haibak and Pul-i-Khumri. Besides the juvenal female collected I saw an adult male carrying a prey (August 5). – In Seistan where it is said to breed, we never saw it, except a very maltreated female brought us on April 1 by a native.

During the spring migration of 1948 single males appeared on March 17 and 28 at Gusalek in Nuristan. At Bamian I saw only the juvenal male listed above.

(70). Pandion haliaëtus haliaëtus (Linné) – Osprey

GRIFFITH (1847: 456) on February 25, 1840, observed an Osprey at Pashat in the Kunar Valley which is the only earlier observation in Afghanistan. In the Pech Valley, which is a side valley to the Kunar, I observed on March 9, 1948, one flying along the river at Gusalek, and two days later I saw the same bird or another, eating its prey at the top of a dead tree trunk high up on a mountain slope.

(71). Falco cherrug Gray - Saker Falcon

The status of the Saker Falcon in Afghanistan is uncertain as hitherto

(72). Falco juggar Gray - Laggar Falcon

Ghazni, E Afghanistan

10. v. 49. ♂ 5×3 wi. 322

Both birds were collected along the road 30–40 km. south of Ghazni. They were subadults with undeveloped gonads and both were moulting their primaries and body feathers. Besides the bird collected on June 24 one or two more individuals were observed. The bird collected on this date had two lizards and some insects in its stomach.

(73). Falco peregrinus babylonicus Sclater – Peregrine Falcon Bamian, Central Afghanistan 13. ix. 49. ♀ 12×5 wi. (302)

This is a typical babylonicus with rufous nape and narrow rufous feather edges on the upper parts. It was a subadult bird with a straight oviduct. Some body feathers and the second primary were growing. The stomach contained parts of a small bird (quail ?).

Two females collected by St. John (1889: 151) on February 5 and July 14 at Kandahar are the only specimens previously known from Afghanistan.

During our stay in the Bamian Valley we saw several times from September 13 to October 4 single Peregrines or pairs. In eastern Afghanistan we observed single individuals on May 26, 1949, at Pul Alam in the Logar Valley, and on the 30th near Kabul.

In western Afghanistan single birds were observed in July 1949 at Herat; between Herat and Islam Qala; at Obeh, sitting on the ground under a small colony of *Columba eversmanni*; and at Kwaja Chisht. It is, of course, unknown to which subspecies the birds seen in the field belonged.

(77). Falco naumanni naumanni Fleicher - Lesser Kestrel

Dilaram, S Afghanistan

3. iv. 49.
$$6 \times 4$$
 we. 129 wi. 228

Haibak, N Afghanistan

4. viii. 49.
$$3 \quad 2^{1}/_{2} \times 2 \quad -131 \quad - \quad - \quad 0 \quad -139 \quad -240 \text{ juv.}$$

$$0 \quad -138 \quad -229 \text{ juv.}$$

The two adults from August were moulting the primaries. The specimens are identical with nominate naumanni from the western part of the range of distribution.

The Lesser Kestrel is known only as a passage migrant in Afghanistan. On April 3, 1949, we saw two on the steppe west of Dilaram, and on August 4 100 to 200 in small parties perched on the telephone wires along the road which runs through a broad and very dry valley between Haibak and the Paigah Kotal.

(78). Falco tinnunculus - Kestrel

- a. Falco tinnunculus tinnunculus Linné
- b. Falco tinnunculus stegmanni (Portenko)
- a. Bamian, Central Afghanistan

12. ix. 49.
$$3 \times 2$$
 we. 168 wi. 221

b. Gusalek, Nuristan

24. iii. 48.
$$38 \times 4 - 170 - 251$$

Pashki, Nuristan

16. v. 48.
$$3.7 \times 5 - 163 - 240$$

22. v. 48.
$$3 \times 7 \times 6 - - 223$$

12. vi. 48.
$$3 \times 3 \times 3 = 153 \times 232$$

Logar Valley, E Afghanistan

23. v. 49.
$$3 \times 6 \times 4 - 169 - 233$$
 subad.

Kabul, E Afghanistan

30. v. 49.
$$3 \times 3 \times 3 \times 160 \times 252$$

The male collected at Bamian belongs to nominate tinnunculus. All the other males differ from Scandinavian males by their paler upper parts and absence of the vinaceous tinge. There is some variation, but the most typical specimen agrees with one collected on April 5, 1935, at Kulmahak in western Iran, which STEGMANN found to belong to stegmanni (cf. PALUDAN 1938: 628).

One of the unsexed juveniles from the Sauzak Kotal has dark upper parts as in nominate *tinnunculus*. In the other specimen—as well as in the two females—the upper parts are decidedly lighter than in females from Scandinavia.

As far as can be judged from the present knowledge nominate tinnunculus is a passage migrant while stegmanni is both a passage migrant and a breeding bird of at least parts of Afghanistan.

Nuristan: I saw the first Kestrel on March 14 at Gusalek after which date it was seen daily. By the end of March it occurred in pairs which performed display flights. It was also common higher up the Pech-Parun Valley at Wama and Pashki where it occurred from the bottom of the valley up to well over the border of the forest. During the latter half of June I saw only two individuals at Stiewe which is situated above the forest.

Eastern Afghanistan: There was no Kestrels at Kabul during the winter and only few in summer. As early as February 19, 1948, we saw one in the Sarobi Valley between Kabul and Jalalabad, but we did not see any in the valleys between Kabul and Kandahar on February 18–19, 1949, and only a few on May 7, whereas it was rather numerous on June 25. From May 23 to 26 a few were observed at Tera Kotal and Saroti Kotal in the province of Gardez.

Central Afghanistan: It was observed on June 2, 1949, at an altitude of 2700 m. in the Shibar Kotal and on June 6 at 2900 m. near the Shahidan Kotal and in the middle of the month several times in eastern Hazarajat between Farakulum and Panjao. Every day during our stay at Bamian from September 6 to October 17 we saw from one to half a dozen resting

Northern Afghanistan: On our journey through Afghan Turkestan by the end of July 1949 we observed it occasionally between Qala Nau and Bala Murghab and east of Mazar-i-Sharif; at Haibak we saw only a single bird on August 2–3. During the first half of July 1948 we observed it in several localities in the Kokcha, Warduj and Sanglich valleys (Badakhshan). A nest in a conglomerate wall at Azasaid contained young on July 6.

(79). Ammoperdix griseogularis griseogularis (Brandt) – Seesee Partridge Qala Bist, S Afghanistan

Tarnak Valley, S Afghanistan

7. v. 49.
$$3 \cdot 13 \times 6 - 205 - 135$$

Obeh, W Afghanistan

13. vii. 49.
$$3 ext{ 13} \times 8 ext{ --- 200 } ext{ --- 132}$$

 $9 ext{ laying } ext{ --- 205 } ext{ --- 124}$

I have not been able to compare these specimens with nominate griseogularis but with 3 males and 3 females of termeuleni from southwestern Iran (PALUDAN 1938: 637). The Afghan males are more greyish, especially, on the grey-and-white spotted feathers of the sides of the neck. In the Afghan birds the colour is dark ashgrey, in the Iranian paler and caudally with an increasing brownish tinge. In the Afghan females the flanks are more heavily vermiculated, and the upper parts are greyer. These differences correspond with the distinction between griseogularis and termeuleni.

MARIEN (1951, Am. Mus. Nov. 1518: 6) also refers the specimens collected by Koelz in southern Afghanistan to nominate griseogularis whereas the populations in northwestern (and northern?) Afghanistan, north of the main mountain range, belong to peraticus (Koelz 1950, Am. Mus. Nov. 1452: 1, type locality: Burchao Kotal, Bend-i-Turkestan) which closely resembles termeuleni.

The Seesee is widely distributed in Afghanistan but nowhere numerous. In the following I give all my observations. On May 5, 1949, I collected between Qala Bist and Laskari-Bazar, south of Girishk, a female out of a

Shikari and on September 22 three individuals in the valley south of Aq Ribat. And finally, I saw a single bird on February 19, 1948, between Sarobi and Jalalabad where the Kabul river passes through a narrow valley.

(80). Tetraogallus himalayensis himalayensis Gray – Snowcock

During the winter months of 1948 I tried to buy some Snowcocks in the bazar of Kabul. But I was told that they did not come on the market until April as they were hunted only during the breeding season. Presumably, they are too difficult to get hold of outside this season.

I tried in vain for a long time to find it in Nuristan. On April 15 and 16, 1948, however, I went out with two men from the village Wama and our Afghan cook with the purpose to hunt markhors in some remote valleys. During this excursion, on which I did not see any markhor, we came to places where the Snowcock was rather numerous, and afterwards I regretted very much that the unsuccessful markhor hunting prevented collecting of some of these birds. We saw the first covey of about a dozen birds on a steep hillside where they were searching for food on a patch with burned off grass. The altitude was about 2200 m. Next we came to a narrow valley which we followed upwards along a path on the almost vertical hillside. There were numerous rock ledges, and small oaks grew everywhere where they could find a foothold. In this habitat the Snowcock was rather numerous. Single birds or a few together flew out from the ledges and went downwards on stiff wings to ledges on the opposite side of the valley. The grey upper parts, the white wing tips, and the dark under parts gave a very characteristic picture of the birds.

I heard three different notes from the birds: (a) The alarmed birds uttered a cry which may be compared with that of a Blackbird alarmed by a cat. I was very surprised when I found out that this sound came from the Snowcocks. (b) During the flight it utters a very characteristic trill which to some extent reminded me of the trill of *Numenius arquata*. The trill was heard not only while the birds rose but all the time they sailed down

found three coveys of 3, 6 and 10 birds in a landscape where hill slopes grown with cushion plants changed with vertical rock walls. The birds, however, were so wary that I never had them within range.

- a. Alectoris graeca falki (Hartert)
- b. Alectoris graeca chukar (Gray)
- a. Darra-i-Shikari, Central Afghanistan

Obeh, W Afghanistan

11. vii. 49.
$$3 \quad 10 \times 4 \quad -162$$

 $2 \quad 10 \times 5 \quad -156$
 $2 \quad 11 \times 5 \quad -156$

b. Pashki, Nuristan

5. vi. 48.
$$\stackrel{?}{\circ}$$
 23×10 — 166
11. vi. 48. $\stackrel{?}{\circ}$ 24×15 — 170

Stiewe, Nuristan

25. vi. 48. 0 pullus

Until now three subspecies have been suggested to occur within Afghanistan, i.e. falki (central and northern parts), pallida (or pallescens, Wakhan), and koroviakovi (southern parts). My specimens without any doubt belong to two very different subspecies, the birds from Pashki in Nuristan being much darker than the six other birds. These last birds collected during June and July in the Darra-i-Shikari and in the Hari Rud Valley are slightly paler than three June specimens of shestoperovi (type locality: Kopet Dagh) collected at Abr in northeastern Iran (Paludan 1940: 53), but on the other hand, they are far from being as pale as the three topotypical werae collected during April and May at Bishe Porem in Luristan, western Iran. These six Afghan birds may therefore belong to koroviakovi (type locality: eastern Iran). Meinertzhagen (1938: 715) found, however, that his birds from central Afghanistan had less vinous on the head and a slightly paler mantle than this subspecies and he therefore referred his

them to belong to *chukar* (type locality Nepal) which inhabits the Himalayas as far east as Nepal. They are slightly paler than the majority of a long series of *chukar* but they are identical with some specimens from northern Punjab.

Eastern Afghanistan: In the bazar of Kabul the Chukor was often offered for sale, and in this town, as everywhere in the country, it was much estimated as a cage bird. On June 19, 1949, I heard a few at Sar-i-Chashma in the Maidan Valley southwest of the capital, which is my only observation from this part of the country.

In Nuristan I often observed it around all our camps in the Pech-Parun Valley, but, except the valley with the Snowcocks, it was nowhere numerous. It occurred in suitable open places from the bottom of the valley through the forest up to the *Juniperus* zone. The greatest altitude at which I saw it was just below 4000 m. On our arrival by the end of February they were already in pairs even though a covey of 5 to 6 birds was seen as late as on April 16. On June 23 I walked on a steep slope grown with *Artemisia* and suddenly stood in the middle of a family party consisting of an old bird with numerous small chicks weighing only about 14 g. The chickens ran to all sides and hid among the vegetation while the adult put on a most convincing display of injury feigning, flapping and limping along. On July 25 I saw above Pashki at an altitude of 3600 m. a covey with nearly full-grown young.

Central Afghanistan: The three specimens collected on June 2 in the Darra-i-Shikari were the only ones observed there. The sex organs of the two females were rather large, although far from the maximum size. We never observed the Chukor in June between the Unaï Kotal and Panjao, eastern Hazarajat, and never during our long stay at Bamian in the autumn.

Western Afghanistan: On July 9 we found a few Chukors in a low tamarisk scrub at Tirpul west of Herat and in the middle of the month two or three coveys of 8–10 individuals in the side valley at Obeh at altitudes from 2000 to 2200 m. All the birds collected there were moulting their body feathers.

(82). Francolinus francolinus bogdanovi Sarudny – Black Partridge Synonym: Francolinus francolinus festinus Koelz, Contr. Inst. Regional Expl. 1:30 (1954 – Girishk).

On March 18 and 24, 1949, we saw a few Black Partridges in the few remains of the tamarisk jangal in the estuary of Farah Rud, and on April 17 two in the fields around Faizabad where they may have been driven up from the now inundated areas further down the river.

(83). Coturnix coturnix coturnix (Linné) – Quail Bamian, Central Afghanistan
2. x. 49. ♀ 5×4 we. 91 wi. 110

The Quail is widely distributed as a breeding bird in Afghanistan but it seems nowhere to be numerous.

Southwestern Afghanistan: Up to our departure from Seistan on April 21 we observed no passage and did not hear its voice from the fields around the villages.

Western Afghanistan: From June 28 to 30, 1949, we heard it several times around Shin Dand. In the main Hari Rud Valley we heard it once in the first week of July at Herat, and several times on the 16th and 19th from the fields at Obeh and Kwaja Chisht.

Central Afghanistan: During the breeding season I heard it on June 2, 1949, at Siah Gird in the Ghorband Valley, and on the 5th at Bamian. During the autumn I here found the first Quail on September 13 in the stomach of a Peregrine. On the 16th I observed the first in the field and from then until October 13 we saw a few on most days, but we never observed a heavy influx.

Eastern Afghanistan: On June 24, 1949, we heard it north of Mukur. In Nuristan it was never observed.

Northern Afghanistan. In Afghan Turkestan I heard it during the

very early in the morning to a place where he expected the quails to come. He had with him a tame quail the voice of which decoyed the wild birds near enough to be noosed.

(84). Lophophorus impejanus (Latham) – Monal Kurder, Nuristan 2. iii. 48. (♀) wi. 273

This specimen, of which only the head and wings were preserved, is the first brought to a museum from Afghanistan. I got it from a native hunter who had bagged it in the coniferous zone above Kurder in Nuristan. It was a few days after we had started collecting, so our Afghan cook had not yet got accustomed to the funny way I treated the birds. When I looked for the Monal in order to skin it, I found the cook busy at work plucking the last feathers of my precious bird.

Information about the Monal in Afghanistan was hitherto given only by GRIFFITH (1847: 457) and WARDLAW-RAMSAY (1880: 70). The former writes: "A Monaul pheasant, or some similar splendid bird is found in the snows of Kafiristan, all I have seen of it are a few feathers." The latter author was told that there were plenty of Monals in Safed Koh on the east border of Afghanistan.

My first misfortune with the Monal was not the only one. I saw it later and especially heard it on several occasions in Nuristan without being able to bag it. Its whistling call: $l\ddot{u}-d\ddot{u}$, $l\ddot{u}d\ddot{u}$ could be heard at a long distance, but was very difficult to locate. Sometimes I climbed for hours the steep hill sides following this call thinking that the bird was just ahead, but, usually, I never found it; in a few cases, however, it took to the wings, but at a moment and in a direction I did not expect. I then had the doubtful pleasure to see a glimpse of the beautiful bird disappearing down a ravine.

On March 10 I saw three large brown gallinaceous birds in the deodar zone above Gusalek, they were, presumably, female Monals. Two males were seen in the Snowcock valley visited on April 16, and in our camp in

(85). Pucrasia macrolopha castanea Gould - Koklas

Pucrasia castanea Gould, Proc. Zool. Soc. London 1854: 99 (1855 - Kafiristan)

Gusalek, Nuristan

22. iii. 48. (♀) wi. 228

Wama, Nuristan

24. iv. 48. 3 — 252 tl. 232

The male differs from one of nominate macrolopha by the much more extended chestnut colour which includes the whole under parts, changes into dark brown on the belly. I have not had the opportunity to compare the male with biddulphi, and no females were available for comparison.

The types of castanea were brought to GRIFFITH (1847: 466) by native hunters when he stayed at Chigha Sarai. He sent them to the collection of the East India Company from where they came to the British Museum. For discussion about the type see Ibis 1878: 125 and Catalogue of Birds in British Museum 22: 314.

I bought the female from a hunter who said that he had shot it in the coniferous forest above Murchal not far from Gusalek. During my excursions in the mountains around Wama I heard a few times a hoarse crow reminding of that of the domestic hen. On April 24 I heard it several times in a place with breast-high scrub surrounded by forest of oak and deodar, and here I bagged the only Koklas I ever saw.

(86). Phasianus colchicus – Pheasant

- a. Phasianus colchicus principalis P. L. Sclater
 Phasianus principalis P. L. Sclater, Proc. Zool. Soc. London 1885:322 (1885 Bala Murghab)
- b. Phasianus colchicus bianchii Buturlin

We did not find a pheasant in Afghanistan although we visited several localities where it was common in earlier days. The Prince of Wales's Pheasant (principalis) is known from the Hari Rud, Tejend and Murghab valleys. The first record of Pheasants in western Afghanistan we owe to Hutton (1847: 782) who got a specimen from Herat where it was said to be

My search for Pheasants along the Murghab in Afghan Turkestan was just as unsuccessful although the members of the Afghan Boundary Commission in 1884–87 (Scully 1887: 86; YATE 1888: 112; AITCHISON 1889: 86) found it to be exceedingly numerous between Bala Murghab and the border. On July 24 we drove about 40 km. down along the river to Bala Murghab. The only habitat where Pheasants could be expected was a tamarisk scrub but no bird was seen. The next day I searched the vicinity of the town and found nearly all the valley under cultivation, and I could find no area with reed beds or tamarisk scrub. The country has undoubtedly changed very much since 1885 when the province of Badghis "... was the home of wild pig and the pheasants, and hardly a man dared to show his face in it. The few inhabitants it possessed had only just arrived, and the country was mostly a waste, the hunting ground of Turkoman raiders." (YATE 1900: 22). In 1893 already, when YATE revisited the province, the change was in rapid progress.

On July 26 we went up the Qala Wali Valley where YATE (1888: 124, 125, 129, 207) at Shukr Guzar, Bokun (= Bokan) and Chahar Shamba found many Pheasants, we, however, found no tamarisk scrub, no reed beds, or any other habitat where a Pheasant could be expected. I think that all the suitable habitats at the time of YATE's journey are now cultivated areas.

The other Afghan subspecies, Bianchi's Pheasant, inhabits the country on both sides of the upper Amu Darya. To the south it is known from the Danaghori Plains where YATE (1888: 326) in 1886 went Pheasant shooting at Chashma-i-Sher, and where Meinertzhagen in 1937 collected a series. The three specimens mentioned by Whistler (1945: 467) were collected by Maconachie on October 26, 1934, at the same locality (R. W. Sims in lit.). On August 5, 1949, I visited Chashma-i-Sher with its very extensive reed beds. For hours we walked through water and mud without finding as much as a Pheasant feather. We found no other locality with reed beds or scrub suitable for Pheasants between Chashma-i-Sher, Dahana and Pul-i-Khumri. We were told that the Pheasants in this district succumbed to an

he is certain to catch them, as they rarely fly a second time, but hide in the snow, where their tracks betray them, and they are pulled out by hand without difficulty ...".

MEINERTZHAGEN found this Pheasant also at Kunduz further north, and a member of the French Archaeological Mission told me that he had seen it a few years ago near the ancient Balkh.

My observations seem to show that the Pheasant had decreased disastrously in Afghanistan and that it is in great need of protection if a stock is to be kept for the future.

(87). Grus grus lilfordi Sharpe - Crane

The first Crane we observed was one killed by an eagle on March 3, 1949, at Baqrabad in Seistan. On the 20th at noon two flocks consisting of about 150 individuals circled over Faizabad where we also saw small parties of 5, 8, and 6 individuals on March 25 and 29, and on April 1. On March 24 there were 9 at Hamun-i-Sabari.

Outside Seistan we saw a single Crane on July 8 on the bank of Hari Rud at Tirpul, and on October 10 at Bamian.

SARUDNY (1911: 232) writes that the Cranes occurring in Seistan and Paropamisus are pale and may belong to *lilfordi*; this is most likely as the border between nominate *grus* and *lilfordi* now is assumed to run as far west as along the Wolga (HARTERT 4: 507).

(90). Rallus aquaticus korejewi Sarudny - Water Rail

Bamian, Central Afghanistan

14. x. 49. $\sqrt[3]{3} \times 1^{1}/_{2}$ we. 138 wi. 128

I have not been able to compare this specimen with material of korejewi, but it differs in every respect from nominate aquaticus as korejewi is stated to do. It was collected in a poplar grove which I passed nearly every day without seeing more than this single individual.

A few specimens were collected earlier in Afghanistan during October, December, January and April, but nothing definite can be said about the I have not compared this series with nominate pusilla from other localities. As the limit between this and the European intermedia runs as far west as at Orenburg they undoubtedly belong to nominate pusilla.

On May 23, 1948, I nearly caught a Baillon's Crake which had crept into a hollow tree near our camp at Pashki in Nuristan. It was the only one seen in Nuristan.

On June 2, 1949, I walked from the road through the Shibar Kotal to some small valleys at an altitude of about 2900 m. On the bottom of these I found a narrow strip of dense, low *Scirpus* vegetation and here and there small springs. In this habitat I collected the female which was the only crake seen there. Its ovary was somewhat enlarged but contained only small follicles. Whether it was on its breeding ground cannot be said with certainty.

From September 7 to October 14, 1949, I saw this crake actually every day when I visited an inundated area in a poplar grove along the Bamian River. There appeared mostly one or two birds, but on September 30 and October 1 as many as half a dozen. Besides the eleven individuals collected I found remnants of six which presumably were killed by *Circus macrourus*.

(95). Gallinula chloropus indicus Blyth – Moorhen

Baqrabad, Seistan

10. iii. 49. 3.5×2 we. 185 wi. 166

Chashma-i-Sher, N Afghanistan

5. viii. 49. $3 \times 3 - 166$

Both specimens have a very short wing as is characteristic of *indicus*; the wing measurements of this subspecies are 156–176 as against 170–190 in nominate *chloropus*.

In Seistan we saw only the specimen listed above, it was collected on the bank of Farah Rud. On May 4 and 5 MADSEN heard the Moorhen a few times along the Helmand River at Lashkari-Bazar south of Girishk; and on August 5 we saw several at Chashma-i-Sher; among them a single rather small young.

One of the last days in May a man in Kabul offered a dozen Coots for sale which were bagged in the vicinity of the town. We never saw a wild Coot except in the southern parts of the country.

(100). Chlamydotis undulata macqueenii (Gray) - Houbara Bustard

We observed the Houbara on the plains of southern Afghanistan on the following dates: on February 20, 1949, one near Girishk and a couple between this town and Dilaram; on March 29 one in the dunes between Farah Rud and the fields around Faizabad (Seistan); and on April 4 one at Dilaram.

On July 9, 1949, we saw one on the meagre steppe about 60 km. west of Herat. It is the first observation in Afghanistan during the breeding season although the species may breed in many places in the country. In the middle of April Sarudny (1903: 69) visited the left bank of Hari Rud in the vicinity of Kafir Qala (= Islam Qala), not far from the locality where we saw the Houbara, and he says that it inhabited the plains there abundantly.

(102). Haematopus ostralegus longipes Buturlin - Oystercatcher

I observed a single Oyster-Catcher on April 8 and 12, 1949, on the bank of Farah Rud near Baqrabad in Seistan, and on July 4 and 5 on the bank of Hari Rud near Herat. The status of these birds is uncertain but they did not behave as birds on their breeding ground.

The only previous record from Afghanistan is the remark made by BLYTH (HUTTON 1847: 789) that BURNES procured it. The subspecies occurring in Afghanistan is undoubtedly *longipes* which mostly is an inland form, breeding from the Black Sea to western Siberia and south to Amu Darya and perhaps to Tejend and Murghab just north of the Afghan border (SARUDNY after GROTE 1931: 348). It is said to be a winter visitor to the whole of the Makran Coast (TICEHURST 1927: 82).

(103). Chettusia leucura (Lichtenstein) - White-tailed Lapwing

a single bird in the estuary of Farah Rud, and on March 11 and April 11 four and three birds at inundations in the steppe near Baqrabad. There were no signs of the birds being on their breeding ground. Sarudny (1900: 470), however found it to be a very numerous breeding bird in the Persian parts of Seistan.

(106). Lobivanellus indicus aigneri Laubmann – Red-wattled Lapwing Herat, W Afghanistan

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2. vii. 49. 3 \times 2 we. 188 wi. 240
4. vii. 49. 3 \times 7 \times 3 = 196 = (220)
5. vii. 49. 2 \times 1 = 182 juv.
20. vii. 49. 0 = 75 pull.
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The two adults are typical aigneri.

We found the Red-wattled Lapwing only in the southern and western parts of the country. On May 5, 1949, we saw a few on mud banks in the Helmand at Lashkari-Bazar south of Girishk, and on March 27 a single bird at Faizabad in Seistan. During April we observed occasionally a few on the banks of Farah Rud at Farah, and on June 29 a single bird and a pair in a meadow along the river at Shin Dand.

By the beginning of July it was very common and breeding in a similar habitat along Hari Rud at Herat. In this valley it occurred also at Tirpul and Obeh. On July 20 we found a pair with a not fledged young in a very arid part of the valley and far away from the river.

The alarm call I noticed as: 'kredeedeer, 'kredeedeer, and if more excited: krededeedeer, krededeedeer.

(108). Charadrius dubius curonicus Gmelin - Little Ringed Plover Faizabad, Seistan, 31. iii. - 20. iv. 49.

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Weight ♂♂: 42, 42; ♀♀: 32, 34, 39
Wing ♂♂: 115, 117, 120; ♀♀: 108, 117, 118.
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Shin Dand, W Afghanistan, 28.-29. vi. 49.

Weight $6 \ 33: 30-35 \ (32.8); \ 99: 30, 31$ Wing $6 \ 33: 111-119 \ (115,5); \ 99: 112, 118$ (3: 1536) gives for curonicus 111–119. My specimens therefore seem to belong to curonicus, with the exception of a female collected on April 20 in Seistan, which has a wing length of only 108 or as in jerdoni. This specimen could be supposed to represent the breeding subspecies in Seistan while all the other birds from this locality were migrants, which they probably also were. It is, however, most unlikely that jerdoni breeds in Seistan, for, according to TICEHURST (Ibis 1934: 112, footnote) curonicus, and not jerdoni, is the breeding form of northern Baluchistan. More material from these regions, however, is desirable before this question can be finally settled.

All the birds are adults. The gonads in the birds from June and July are in regression; most developed they are in a female collected on June 16 at Panjao, in which the largest follicle had a diameter of $1^1/2$ mm., and the oviduct still had a considerable size. The birds collected by the end of June and the beginning of July were in the postnuptial moult.

The Little Plover is both a summer visitor, a passage migrant, and a winter visitor to Afghanistan.

Southern Afghanistan: On March 17, 1949, the first few migrants appeared at some pools in the steppe on the Lower Farah Rud, and on the 31st we saw 20–25 on the banks of the river near Faizabad. During April they were mostly in pairs, and their trilling courtship call was often heard. Whether it breeds in Seistan I cannot say, but Cumming collected a specimen at Kuhak as late as May 9, and he was sure that the bird bred there.

It probably breeds in many places in southern Afghanistan, where we observed it in the breeding season on the banks of the Helmand (on May 4–5 at Lashkari-Bazar, and on the 6th at Girishk) and of the Khash Rud (on May 27 at Dilaram).

Western Afghanistan: We found it on June 28–30 to be rather numerous along the Adraskan river at Shin Dand. They were in pairs or 3 to 4 birds together. Although all the birds collected were adults and moulting and no young or nests could be found, I think, however, that they were on their breeding ground. This seemed also to be the case in the Hari Rud Valley, where on July 2–5 we found it to be common at Herat and saw a few

no passage but saw occasionally a few birds, namely a single one on September 28 at Band-i-Amir, two on October 2 at Bamian, and a pair on the 6th in the Shahidan Valley.

Eastern Afghanistan: On May 25 we saw a single bird at a brook above Usman Khel, east of Gardez. It neither occurred on the banks of the lake Ab-i-Istada nor in the narrow valleys of Nuristan. It seemed to prefer the broad river beds with stone reefs and islets and banks grown with short grass.

Northern Afghanistan: During the last week of July 1949 we saw a few single birds along the rivers at Qala Nau, Bala Murghab, and Maimana, and on August 5 at Pul-i-Khrumri.

In Badakhshan we saw pairs on July 2 and 15th at Schah-i-Pari in the Kokcha Valley and at Zebak. When we returned on the 17th to Schah-i-Pari we found a single bird in just the same place where we had seen the pair. This, in connection with the behavior of the birds, showed that the birds undoubtedly were on their breeding ground.

(109). Charadrius alexandrinus alexandrinus Linné – Kentish Plover Hamun-i-Sabari, Seistan, 24.–31. iii. 49

Weight ♂♂: 37, 39, 39, 39, 39; ♀♀: 38, 39

Wing ♂: 105, 107, 109, 110, 114; ♀♀: 107, 110, 110

Ab-i-Istada, E Afghanistan, 9. v. 49.

Weight 33: 38, 40 Wing 33: 107, 114

The series agree with Scandinavian specimens. The testes of the birds collected in Seistan were small, from 4×2 to 5×3 mm. In one of the females the ovary and the oviduct were obviously enlarged; one of the follicles measured 3 mm. In the males collected at Ab-i-Istada the testes were much enlarged (8×5) and injected.

We found the Kentish Plover to be rather numerous in Seistan, presumably as a winter visitor or passage migrant. On March 24, 1949, several flocks, consisting of up to half a hundred individuals, were feeding on the banks of Hamun i Sabari, and on the 26th and 20th we saw some smaller

(111). Charadrius leschenaultii Lesson - Large Sand Plover

Nil Kotal, Central Afghanistan

6. vi. 49.
$$3 \times 3 \times 3$$
 we. 73 wi. 141

The only previous record of the Large Sand Plover is a male collected (in February) 1896 at Shorawak in southern Afghanistan (FINN 1896: 567; WHISTLER 1945: 474). On June 6, 1949, we tried to go by jeep from Bamian through the Nil Kotal to Band-i-Amir but were stopped by the muddy roads. At an altitude of 3100 m. we had an accident and at the same time encountered a snow shower. While this was going on two Large Sand Plovers alighted at a small pool just near our party. Unfortunately, I got only one of the birds, a male, the slightly enlarged gonads of which do not indicate whether the birds were on their breeding ground or not.

(112). Numenius arquata arquata (Linné) - Curlew

There are very few records of the Curlew in Afghanistan, and I saw it only once, namely a party of five birds on March 30, 1949, on the bank of Hamun-i-Sabari.

(114). Tringa totanus subsp. ? - Redshank

On March 7, 1949, I saw a party of half a dozen Redshanks in the estuary of Farah Rud in Seistan; on May 9 a few on the banks of Ab-i-Istada; and on July 15, 1948, a single bird between Zebak and Sanglich in Badakhshan. The birds at Ab-i-Istada were silent, and nothing in their behavior indicated whether they were on their breeding ground. The same was the case with the bird at Sanglich.

(117). Tringa ochropus Linné - Green Sandpiper

Faizabad, Seistan

12. iv. 49.
$$3 \times 4 \times 3$$
 we. 64 wi. 142

27. iii. 49.
$$\circ$$
 2 — 91 — 143

Herat, W Afghanistan

5. vii. 49.
$$96 \times 4 - 57 - 143$$

All the birds are in summer plumage, except the male collected on September 12 which is moulting the juvenal plumage.

Southwestern Afghanistan: We saw only few Green Sandpipers during the time of migration in Seistan, the first six specimens on March 17, 1949, at a small pool on the steppe near Faizabad. From this date and until April 16 we occasionally observed single birds or pairs in the district, and on April 3 four birds west of Dilaram.

Western Afghanistan: From July 2 to 19 we saw a few at Tirpul, Herat, Obeh, and Kwaja Chisht in the Hari Rud Valley. They were found in meadows and tamarisk scrub along the river. An examination of the sex organs of the two females collected revealed that the ovaries were small and the oviduct slightly enlarged as in birds just after the breeding season.

Central Afghanistan: There was only a slight migration during the time we spent at Bamian, a few single birds being observed during the first half of September.

Eastern Afghanistan: On February 20, 1948, I saw two birds at Darontah west of Jalalabad. The spring migration through the Pech-Parun Valley in Nuristan was very weak for I made only two observations, namely of two birds on April 11 at Wama, and of three on May 12 at Pashki.

Northern Afghanistan: Having crossed the Hindukush on June 29 through the Weran Kotal we came to a small lake at an altitude of about 3700 m. There we flushed four Green Sandpipers from a small grassy area. When on July 21 we returned to the same place three birds were seen again. From July 1 to 5 we saw occasionally single birds down along the Kokcha until north of Parwara, and also from the 14th to the 20th through the Warduj, Sanglich and Weran valleys.

In Badghis we found on July 23, 1949, a party of half a dozen birds along the river at Qala Nau. The bird collected was very fat.

I never found any evidence of any of the birds being on their breeding ground, and even the birds from the middle of May and the beginning of July may very well have been migrants.

(119). Tringa hypoleucos Linné - Common Sandpiper

Pashki, Nuristan

15. v. 48.
$$3$$
 6×4 we. 40 wi. 109
12. v. 48. 9 3 — 51 — 112
16. v. 48. 9 3 — 46 — 111

Panjao, Central Afghanistan

13. vi. 49.
$$3 \times 3 - 40 - 106$$

15. vi. 49.
$$3 \times 3 - 46 - 109$$

12. vi. 49.
$$\bigcirc$$
 4 -56 -114

Bamian, Central Afghanistan

6. ix. 49.
$$94 \times 2 - 44 - 112$$
 juv.

Faizabad, Seistan

10. iv. 49.
$$3 \times 3 - 42 - 114$$

They are all in summer plumage, except the male collected on April 10, which is in winter plumage, and the female from Bamian, which is immature.

Eastern Afghanistan: On February 20 to 21, 1948, we saw a few along the Kabul River near Jalalabad. In the Pech Valley we saw the first migrants, a single bird and a pair, on April 21 at Wama, and there again a single bird on the 30th. During the last half of May and the first half of June there were many pairs along the river in the comparatively broad valley at Pashki. Undoubtedly, the birds were here on their breeding ground. The sex organs of the birds collected were enlarged, especially in the female from May 31, but laying seemed still not to have commenced at the end of this month. We often heard their trilling courtship call: tjeetjee-tjee-tjee-tjee, and the birds pursued each other and performed a courtship flight with fast whirling wings. There were also a few pairs at Stiewe (altitude 2600 m.), where on June 19 I found a nest which contained four fresh eggs. It was placed under a flat stone in a clearing in a willow scrub along the river. It was lined with short, dry plant stems.

Migrants were seen on May 9, 1949, between Mukur and Ab-i-Istada and on the banks of this lake.

Central Afghanistan: In the middle of June, 1949, we observed a

Zebak and Sanglich. Nothing definite can be said about the status of these birds.

On July 25, 1949, we saw a pair at Bala Murghab.

Southern and western Afghanistan: We observed very few migrants in Seistan, the first one on March 9 and then none until April 10 to 17 when we saw a few again. Presumably also the birds seen on May 3 between Dilaram and Girishk, on the 4th and 5th at Lashkari-Bazar, and on July 16 at Obeh in the Hari Rud Valley were migrants.

(120). Capella solitaria solitaria (Hodgson) – Solitary Snipe Bamian, Central Afghanistan

9. x. 49. 3×1 we. 139 wi. 162 3. x. 49. $9 \times -149 \times -168$ 13. x. 49. $9 \times 6 \times 3 \times -152 \times -161$

I saw from one to three Solitary Snipes on September 29 and October 3, 9, 10, and 13, 1949, in a poplar plantation along the river at Bamian. If alarmed they tried to crouch or to steal away to a hide and behaved in this way rather differently from the Common Snipe. The rufous subterminal tail band is very conspicious in the rising bird. The birds flushed flew only a short distance before they dropped again.

There are a few other records during the autumn, winter and spring from eastern Afghanistan so it seems to be a fairly common off-season visitor. Where these birds breed is, however, not easy to say, unless there are some unknown breeding places not too far away for it is usually supposed not to undertake a regular migration, but merely to move to lower altitudes during the winter. The known breeding range includes the high mountains of central Asia from Tarbagatai south to Tian Shan and Himalaya, and east to Koko Nor. Tadjikistan and the most western parts of Himalaya are not included.

(121). Capella gallinago gallinago (Linné) – Common Snipe

On March 25 and 26, 1948, I saw a single Common Snipe in the fields

Both specimens in winter plumage, but the male had started to moult the feathers on head and neck.

The Sanderling, which was not previously known from Afghanistan, was rather numerous on the banks of Ab-i-Istada on May 9, 1949.

(129). Himantopus himantopus (Linné) - Black-winged Stilt

I saw, on March 24, 1949, a flock of twenty Black-winged Stilts over the Hamun-i-Sabari near the estuary of Farah Rud, and on May 9 another one of 30 birds over the Ab-i-Istada. In spite of the late date, the birds at Ab-i-Istada did not behave as if they were on their breeding ground.

Although the Stilt most likely breeds in Afghanistan there is still no proof of this.

(130). Recurvirostra avosetta avosetta Linné - Avocet

We saw, on March 2 and 4, 1949, four and five Avocets in the estuary of Farah Rud, on the 24th three on the bank of Hamun-i-Sabari, and on May 9 a single bird and a flock of seven on the banks of the lake Ab-i-Istada. The Avocet may very well breed in the latter locality but my observations gave no information as to the status of the birds.

(131). Phalaropus lobatus (Linné) – Red-necked Phalarope Bamian, Central Afghanistan

7. x. 49.
$$3 \quad 2 \quad \times 1 \quad \text{we. 25} \quad \text{wi. 108}$$

 $3 \quad 1^{1}/_{2} \times 1 \quad -25 \quad -103$
 $4 \quad \times 3 \quad -24 \quad -107$
 $4 \quad \times 3 \quad \times 2 \quad -27 \quad -108$

All four are in postjuvenal moult. They swam together on a flooded area in one of the poplar plantations in the Bamian Valley. It is the first record from Afghanistan of *Phalaropus* on passage to the winter quarter in the Arabian Sea.

(132). Burhinus oedicnemus astutus Hartert – Stone Plover Ab-i-Istada, E Afghanistan

9 v 49 \$ 10 × 8 wi 252

sandy colour, and by the narrower and sharper painted streakes of the upper parts. They belong undoubtedly to the subspecies astutus which is distributed from the Persian Gulf to Sind. The male from Ab-i-Istada has an exceptionally long wing.

On May 9, 1949, we saw a pair of the Stone Plover in a very arid area near Ab-i-Istada. We only got the male which had enlarged and injected testes. Presumably the pair was on the breeding ground.

In the evenings of March 9 and 10 Madsen heard its characteristic call at Baqrabad in Seistan, and on the 26th I saw a party of three on the banks of Farah Rud near Hamun-i-Sabari.

At the beginning of July I found it to be a rather common bird in the flat stony areas with a low tamarisk scrub along the river at Herat. We observed it also at Tirpul. I made no observations indicating the status of the birds, but there can be little doubt that they were on their breeding ground. They were very difficult to flush; they would either run a long distance in the open scrub or crouch. If they finally took to the wing, they flew straight to another hiding place. A winged bird ran faster than I could.

On July 30 Madsen saw one on the steppe west of Balkh in Afghan Turkestan. The specimen collected at Bamian was the only one seen there.

(133). Cursorius cursor (cursor (Latham)) - Cream-coloured Courser Dilaram, S Afghanistan

21. ii. 49. 36×3 wi. 160 bs. 24

Lower Farah Rud, Seistan, 6.-29. iii. 49.

Weight 33: 127, 130, 135

Wing 33: 160, 160, 161, 162

Bill from skull 33: 23, 24, 25, 25

Herat, W Afghanistan, 3.-8. vii. 49.

Weight 33: 122, 135, 148; ♀♀ ad.: 120, 135; juv.: 104

Wing 33: 162, 168, 168; 99 ad.: 164, 165; juv.: 169

Bill from skull 33: 23, 24, 25; 99 ad.: 22, 24

The males from March are moulting some body feathers and one of them has three new outer primaries. All the adults from July are moulting the remises, and the males and the invenile female also the body feathers.

synonymous with typical *cursor*. Compared with this form the Afghan specimens seem rather large for VAURIE (in lit.) has measured the wing length of 9 African males to be 154–165 (160,8) against 160–168 (162,0) in the 8 Afghan males. Also the bills seem rather large in the Afghan birds.

On the steppe around Dilaram in southern Afghanistan we saw two pairs on February 21, 1949, and a single bird on April 3 and May 3.

We saw it on several occasions from February 28 to April 2 on excursions on the steppe around the Lower Farah Rud in Seistan. Most of these birds, I think, were in their winter quarter or they were migrants. They occurred mostly in pairs or in small flocks of 6 to 8 individuals, but even in the flocks they kept together two and two. There probably was a peak of migrants on March 25 and 29, but the number of birds passing through was not very high as the birds which were observed on these two days did not exceed 20 and 15 individuals respectively.

During the first three weeks of July we found the Cream-coloured Courser on several localitites in the Hari Rud Valley from Islam Qala, at the border to Iran, to east of Herat. It was not found along the river but in the driest parts of the valley where it occurred single or in smaller parties of 5 to 6 birds. They were undoubtedly on their breeding ground; a female collected on July 8 was a young one, and in two adult females from the first week of July the sex organs were much enlarged with follicles measuring up to 15 mm. in diameter.

It breeds presumably also in eastern Afghanistan, where MADSEN saw one south of Mukur on June 25, and in northern Afghanistan, where he saw one near Balkh on July 30, the only one observed during our trip through Afghan Turkestan.

(136). Larus argentatus – Herring Gull

There are very few records of Herring Gulls from Afghanistan, and it is uncertain to which subspecies the recorded birds belong. A grey-backed (cachinnans?) and a black-backed form (heuglini?) however seem to occur.

We saw, on March 7 and 18, single large, grey-backed gulls on the Hamun-i-Sabari which undoubtedly were Herring Gulls. On May 2 a party

(137). Larus ichthyaëtus Pallas - Great Black-headed Gull

We saw a few Great Black-headed Gulls from February 26 to March 9 over Hamun-i-Sabari and along the lower Farah Rud. They all had summer plumage with black heads. It is known only as a migrant in Afghanistan.

(138). Larus ridibundus Linné - Black-headed Gull

We observed the Black-headed Gull only at Hamun-i-Sabari, where on March 18 a flock of twenty was seen over the lake, and on the 24th several were migrating in northern direction while a party of about 200 rested on the bank. Nearly all individuals had black heads.

(139). Larus genei Brème - Slender-billed Gull

Ab-i-Istada, E Afghanistan

9. v. 49. Q 5 wi. 277

Bill dark liver-coloured, nearly black; in a few places a red colour was shining through. Feet pink.

On May 9, 1949, we found a few on the bank of Ab-i-Istada and several on a small island. When I approached by kayak they left and settled on the water around the island. They were undoubtedly on their breeding ground even if I did not find any eggs. According to Ticehurst (1927: 86) most eggs are not laid until the first week of June in Baluchistan. The largest follicle in the female collected had a diameter of 5 mm., and the oviduct was considerably enlarged but still not at its maximum size.

On February 25, 1949, I saw a single bird at Hamun-i-Sabari.

(141). Gelochelidon nilotica nilotica (Gmelin) – Gull-billed Tern Ab-i-Istada, E Afghanistan

9. v. 49. ♀ laying we. 190 wi. 304

On March 29, 1949, I saw two Gull-billed Terns on the lower Farah Rud, and MADSEN saw one on April 17.

On May 9 I found a colony of 100–150 pairs on the banks of a small island in Ab-i-Istada. Most nests contained two eggs, the rest three. The

Ab-i-Istada, E Afghanistan

9. v. 49.
$$3 \times 6$$
 we. 114 wi. 268

Herat, W Afghanistan

4. vii. 49.
$$37 \times 5 - 103 - 266$$

 $37 \times 5 - 104 - 275$

Obeh, W Afghanistan

16. vii. 49.
$$3 \times 2 \times 1 - 97 - 245$$
 juv. $9 \times 3 \times 2 - 99 - 243$ juv.

On May 9, 1949, I saw a few Common Terns among the Gull-billed Terns on the small islands in Ab-i-Istada.

They did not yet seem to have eggs, but the testes in the male collected were large and injected. There were several small parties on May 4-5 along the Helmand at Lashkari-Bazar, and a single bird on the 6th at Giriskh.

It was a common bird along the Hari Rud from Tirpul to Obeh during the first half of July. On the 16th we saw a pair with just fledged young on the stony banks near Obeh.

Lashkari-Bazar, S Afghanistan

4. v. 49.
$$3$$
 12×5 we. 54 wi. 176

Herat, W Afghanistan

4. vii. 49.
$$3 \times 3 - 48 - 174$$

 $9 \times 5 - 40 - 166$

On April 30, 1949, I saw a single Little Tern at Farah, and on May 4-5 a few along the Helmand at Lashkari-Bazar. Besides the male in the list I there examined a female which was too damaged to skin. It had a slightly enlarged ovary in which the largest follicle measured 3 mm. During the first week of July there were a few at Herat and Tirpul.

It is very likely that this tern breeds along the rivers Helmand and Hari Rud. Anyhow, it breeds in Seistan where Cumming (1905: 696) found it to be common and in pairs during May, and where SARUDNY (1900: 58) found it to be a very common breeding bird on the Persian side of the border.

from a stone desert. It was an adult female with an enlarged oviduct, the biggest follicle measuring 6 mm. in diameter.

On July 29 in the neighbourhood of Andkhui I saw two flocks of eight and ten birds approaching from the desert-like country to drink from one of the irrigation ditches. It was at 7:30 a.m. The next day two flocks of 20–30 individuals were seen in a cultivated area 20 km. west of Shibarghan.

(147). Pterocles orientalis subsp. - Imperial Sandgrouse

? Pterocles orientalis bangsi Koelz, Proc. Biol. Soc. Washington 52: 81 (1939 - Tolokhan, NE Afghanistan)

Farah, SW Afghanistan

20. ii. 49. 3 7×3 wi. 256

A comparison of a male *Pt. o. orientalis* collected at Firuzkuh in northern Iran (July 29) with the specimen I shot east of Farah reveals that the latter has none of the characters ascribed to *bangsi*. The type and paratypes of *bangsi* were collected in northeastern and northern Afghanistan during the breeding season, but more specimens of both breeding birds and migrants must be collected before it is established that a distinct subspecies occurs in Afghanistan.

The Imperial Sandgrouse is the dominant species in Afghanistan. On our drive from Kabul to Farah via Kandahar on February 16–22, 1949, we saw the first individuals 24 km. west of Kandahar, and later we noticed several flocks. The specimen collected 50 km. east of Farah was searching for food with another bird on a "grassy" area of the steppe. Its stomach was completely filled with small seeds and short green plant stems. The next day we saw two flocks on the steppe west of Dilaram.

From February 24 to March 10 we observed many single birds as well as flocks of about 30 individuals on the steppe, in fields, or in the river bed along the lower Farah Rud. On March 20 and 21 we saw a few more, but after that date we did not find any, although we remained in the area until April 21. We did not observe a single sandgrouse during a trip to Farah, Girishk and back to Seistan on April 2–7. I therefore presume that the

or small flocks were found not only in the main valley but also in the side valleys extending to the Ardewan and Sauzak kotals.

North of the main mountain range two individuals were seen on the steppe south of Andkhui July 28, and a single bird was flushed from a ploughed field on the top of a ridge near Haibak August 2.

In central Afghanistan it was observed just once, near Cham Kotal, where a pair was seen June 6 at about 3000 m. elevation.

In the southeastern part of the country four and later two birds were observed May 9 at Ab-i-Istada. The following day a few were observed near Mukur and between Mukur and Ghazni.

(148). Pterocles coronatus atratus Hartert - Coronetted Sandgrouse

Pterocles coronatus atratus Hartert, Bull. Brit. Orn. Club 12: 48 (1902 - Eastern Persia)

Girishk, S Afghanistan

26. vi. 49.
$$3 \times 3$$
 wi. 193
 $3 \times 1 \times 1^{1/2}$ — ? juv.
 $3 \times 5 \times 3$ — 187

Shin Dand, W Afghanistan

1. vii. 49.
$$\stackrel{?}{0}$$
 9×5 — 188

The two adult males from the vicinity of Girishk are moulting the primaries, and in one of them the chin and throat feathers are growing. In the young bird the outer primaries are still growing. This specimen and one of the adult males formed part of a flock of five.

The adult specimens are not quite alike. In the one from Shin Dand the upper parts are darker and the contrast between the greyish buff of the upper breast and the more ruddy buff of the abdomen is more pronounced. With the scanty material at hand it is impossible to decide whether these differences are geographical, individual, or a plumage stage.

The Coronetted Sandgrouse was first seen near Girishk on May 3, 1949, and again in the same area on June 26. North of Shin Dand, where Pt. orientalis was abundant, the coronetted was observed on July 1. Two flocks of four and seven were seen 25 and 34 km. north of that village along the

Bill black, basal part grey, iris grey yellow, legs and feet coral. – Four of the specimens are moulting the body feathers. – The strongly injected testes were presumably at their maximal stage. The ovary of the female showed a continuous development of the follicles, the largest having a diameter of 4 mm. The oviduct was enlarged but not at its maximum. In another female the development of the follicles was discontinuous with the largest measuring 10 mm. and more reddish yellow than the smaller ones. No calyces were visible. The oviduct was close to its maximal size. This female would have begun to lay in a short time. – The crops contained cereals from the fields.

STUART BAKER (5: 224) includes Afghanistan within the range of the Snow-Pigeon, although no earlier record seems to support this statement. It is, however, a breeding bird in the northeastern parts of the country, where I found it rather common in the higher parts of the Parun Valley in Nuristan. Here around the village of Pashki, I saw it nearly every day during my stay from May 8 to June 14. It came from the surrounding mountains to feed in the fields in the bottom of the valley, and I often saw it in flocks with the more numerous *Columba livia*. An examination of the gonads revealed that the birds were sexually active in May and June. I failed, however, to find their nests in the mountains, although there were many suitable sites for nesting. In some cases I saw single pairs or small flocks near cliffs, and it is possible that their nests may have been built in these inaccessible areas.

Higher up the Parun Valley, at Stiewe (2600 m.), the Snow-Pigeon was less common, but I saw it several times between June 16 and 28. On the 20th I observed two pairs in the valley leading to the Weran Kotal, one of them at an altitude of about 3550 m.

North of the main mountain range it was observed in the Weran Valley only between about 3550 and 3000 m. Two and four individuals were observed in groups on June 30 and six on July 21.

(150). Columba rupestris turkestanica Buturlin - Hill-Pigeon

Gusalek Nuristan

few Columba livia. A flock was also observed in other places in the vicinity, but it may have been the same individuals.

We did not see the Hill-Pigeon again until we had crossed the main ridge of the Hindukush. We found it in several places in the Kokcha (or Munjan) Valley from Nau (ca. 2500 m.) down to Iskan (1550 m.) between June 30 and July 7 but nowhere farther down the valley. On July 13–17, as we returned through the Warduj Valley, we saw it at Chakaran (1520 m.), and then we saw it again several times as we travelled over Zebak and Sanglich to Nau. It often appeared in flocks with *Columba livia* in the small cultivated areas around the villages, and a few were observed on the cliffs bordering the rivers.

The Hill-Pigeon, which undoubtedly breeds in Badakhshan, has not been previously reported from Afghanistan.

- a. Columba livia gaddi Sarudny and Loudon
- b. Columba livia neglecta Hume
- a. Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$3 18 \times 7$$
 wi. 233 rump d $3 19 \times 8 - 235 - d$ $4 - 220 - d$ $5 - 218 - d$

Bamian, Central Afghanistan

11. x. 49.
$$3 6 \times 3 - 229 - d$$

Panjao, Central Afghanistan

12. vi. 49.
$$\stackrel{?}{\circ}$$
 5×1 — 229 — (1)
16. vi. 49. $\stackrel{?}{\circ}$ 12×6 — 239 — 1
17. vi. 49. $\stackrel{?}{\circ}$ 10×5 — 231 — d
 $\stackrel{?}{\circ}$ 11×6 — 236 — 1
12. vi. 49. $\stackrel{?}{\circ}$ 11×7 — 221 — d
 $\stackrel{?}{\circ}$ 10×6 — 229 — d
 $\stackrel{?}{\circ}$ 2 — 228 — 1

Herat, W Afghanistan

3. vii. 49.
$$\vec{a}$$
 18×6 — 227 — d

5. vii. 49.
$$94 - 215 - w$$

Pashki, Nuristan

15. v. 48.
$$3 \quad 22 \times 9 \quad \text{wi. } 234 \quad \text{rump d}$$
 $3 \quad 20 \times 9 \quad -233 \quad -d$
27. v. 48. $3 \quad 17 \times 8 \quad -226 \quad -d$
15. v. 48. $9 \quad 18 \quad -228 \quad -d$
19. v. 48. $9 \quad \text{laying} \quad -226 \quad -d$
 $9 \quad 3 \quad -230 \quad -d$
27. v. 48. $9 \quad 20 \quad -(222) \quad -d$

Four of the specimens from Pashki have growing body feathers. A female is moulting the inner primaries (May 27), a male the rectrices (June 4), and another male both the rectrices and the wing feathers (October 11).

The crops of the Pashki birds contained cereals from the newly sown fields, those from Darra-i-Shikari had half ripe cereals.

The specimens from Wama and Pashki in Nuristan are distinctly darker than those from the other localities, especially the upper parts, where the grey blue is a darker shade and the light rump less pronounced. The under parts are also darker. However, a few specimens from outside Nuristan are identical with this series in the last respect.

MEINERTZHAGEN (1938: 707), who was able to compare his large series from central and northern Afghanistan with further material, names his birds gaddi and writes "... the mantle is a shade paler and the underparts also paler than in neglecta or intermedia." As several of my specimens were collected in the same area as Meinertzhagen's, these light birds belong without doubt to gaddi. I have only been able to compare them with two specimens from Tehran (20. iv. 34); these have the same light coloured mantle; in one instance the rump is as light as in the specimens marked "I", while in the other it is as white as in a female collected on July 5 at Herat, which is the only one of my Afghan specimens that has a really white rump.

I have not been able to compare the dark Nuristan series with either neglecta or intermedia. There can, however, be little doubt that it belongs to neglecta, of which the type came from Ladahk.

A male from Wama is heavily spotted with black on the upper parts,

to the back when seen in the field. The notes, which cover most parts of the country, refer to "a few", "a small percentage" etc. of white-rumped birds. There are just two exceptions: in Nuristan (neglecta) I saw only one bird with a light rump. This was in the uppermost part of the Parun Valley, near the main range north of which white-rumped pigeons reappear. The other exception was Lashkari-Bazar and Qala Bist, south of Girishk, where I estimated that about 50 per cent of the birds had white rumps.

Nuristan: The Rock-Dove was seen a few times at Gusalek in March 1948 and several times at Wama in the first half of April, but it seldom appeared during the second half of the month. The gonads of the birds we collected had begun to enlarge. At Pashki, between May 8 and June 14, groups of 20 to 30 birds came with Columba leuconota to feed in the fields at the bottom of the valley. As usual the pigeons remained in bands after the beginning of the breeding season. The testes of the males were at their maximum size. One of the females was in laying condition and two others almost so. One bird that was shot but not skinned on June 14 was also in this state. The birds were less numerous at Stiewe, the highest village in the Parun Valley. About a dozen pairs were believed to nest on a vertical rock cliff close to a waterfall.

Eastern and southern Afghanistan: I observed Rock-Pigeons in several places May 23–25, 1949, as I travelled from Kabul via the Logar Valley to Gardez and on to Saroti Kotal. None were seen between Kabul and Kandahar on February 16–17, and only a few appeared in May. From Kandahar to the west the bird was frequently seen on February 20 in cultivated fields and rocks along the road. South of Girishk, at Lashkari-Bazar and Qala Bist, it was exceedingly abundant in the ruins of the old palace and the citadel.

Through the steppe between Girishk and Dilaram I saw a Rock-Pigeon only once, on April 4. The next day I saw 20–25 at the river near Dilaram, and a few appeared along the road between Dilaram and Farah among the foothills on February 21, April 3 and June 27.

In the region of the lower Farah Rud rather large flocks were observed about 15 miles south of Farah on March 1. Around the villages of Baqrabad

valley above Obeh it appeared constantly around some rocks at an elevation of 2000 m. A female which was collected here on July 11 had an egg in the oviduct. Another breeding place was a conglomerate wall in the main valley between Obeh and Kwaja Chisht. The bird also bred near the Sauzak Kotal, where a group of four birds were feeding along a small stream at 2200 m. when a female was collected.

Northern Afghanistan: North of the western parts of the main range the Rock-Pigeon was seen near Qala Nau on July 22, 1949. On July 24 I found the bird in many places between Qala Nau and Bala-Murghab, and in one instance several hundred appeared on a cliff. The pigeon was numerous also in the vicinity of Maimana, and a few were observed at Andkhui. We did not see any more until we left the steppe on August 1 and drove into the foothills at Tashkurghan. Some rather large flocks were on the fields around Haibak. In the hot hours of the day I found them packed together on shady ledges in a canyon, and I could hardly flush them from their shelter. Only a few birds appeared on the Danaghori plains and up the Surghab river on August 5 and 6, but at Doab it was rather numerous.

After I had crossed the main range of Hindukush from Nuristan to Badakhshan I found the Rock-Pigeon again below Nau and on the road to Faizabad between June 30 and July 17, 1948. I did not collect any specimens on this trip, but there can be little doubt that the population of Badakhshan belongs to the subspecies gaddi and not to neglecta, which inhabits Nuristan, for again I observed a conspicuous contrast between the rump and the back in a few individuals in every flock. I saw this only once in Nuristan.

Central Afghanistan: The pigeon was common at Darra-i-Shikari on June 2, usually appearing in groups of two or three, and on September 16 I saw a few small flocks. Several were noted on the second of June in the valley which runs west from Shibar Kotal. On September 5 and October 18 I saw a few flocks here of about 50 to 100 birds. On a plateau (2900 m.) east of Cham Kotal I found a rather large flock on June 6, and the following day I saw a large one with about two hundred birds in a field in the Bamian



Fig. 26. Ruins of a pigeon house in the palace of Mahmud on the bank of the Helmand river at Lashkari-Bazar, 5, v. 49.

At Panjao, on June 12–17, there were flocks of 30–40 birds in the fields. None of the females that were shot was in laying condition, and the gonads of the males were not at their maximum size. The fact that a male is immature suggests that the (first?) breeding season was over at Panjao by the middle of June.

The French Archaeological Delegation in Afghanistan under the leadership of Dr. D. Schlumberger was excavating the palace of Mahmud (eleventh century) at Lashkari-Bazar. They guided us through the palace and showed us the imposing pigeon house (Fig. 26) which is of interest since it reveals the importance of breeding pigeons at that time. I regret to say that I made only a few notes about the present state of domestic of Baqrabad in Seistan. In several of the villages around Herat there are pigeon towers, but sometimes it was difficult at some distance to distinguish them from the towers used for drying grapes.

(153). Columba eversmanni Bonaparte – Eastern Stock-Dove Herat, W Afghanistan

10. vii. 49.
$$3$$
 19×9 we. 234 wi. 197 3 19×5 — 194 — 202 3 20×6 — 220 — 205 3 19×7 — 185 — 202 3 19×6 — 224 — 201

Obeh, W Afghanistan

16. vii. 49.
$$3 ext{18} \times 8 ext{--} 190 ext{--} 204$$

Qala Nau, N Afghanistan

23. vii. 49.
$$3 \times 23 \times 7 = 183 = 203$$

Bala Murghab, N Afghanistan

Skin around eyes pale yellow, iris dark yellow, legs and feet light flesh coloured.

Body feathers growing in all the males from Herat and the female from Bala Murghab.

I found the Eastern Stock-Dove in the Hari Rud Valley and north of the main mountain range. I did not identify it with certainty at Herat until, on July 10, I found a rather large colony breeding in a perpendicular clay cliff that rose to a height of 10–15 m. at the edge of the river bed. The nest holes were dug in narrow layers of gravel and pebbles in the clay, but I could not reach the nests. There was no doubt, however, that the birds were breeding as their testes were at or very near their maximum size. Furthermore, the birds kept very close to their holes despite my shooting. No young were seen. The fact that only males were shot may indicate that the male of this species does the incubating alone in the middle of the day. A few days later I found a small colony of 10–20 pairs in a clay cliff at Obeh.

At Qala Nau I found a similar nesting place on July 23. I also saw this

12. vii. 49. ? nestling
$$3 24 \times 9$$
 wi. 261

Wama, Nuristan

19. iv. 48. $3 -270$
 $3 11 \times 5 258$
 $9 18 \times 8 252$

Pashki, Nuristan

28. v. 48. $9 10 \times 8 265$

Body feathers were growing in the adult male from Obeh and in one of the birds from Wama.

Specimens of true *casiotis* were not available for comparison, but in the series above the neck patch is buff, a characteristic of *casiotis*. The specimens, however, are not paler than Danish breeding birds which show some variation in their general colouration.

The Wood-Pigeon was not numerous anywhere, and I found it only a short distance north and south of the main mountain range. I discovered two nests with one and two nearly hatched nestlings at 2300 m. above Obeh, and a few more pairs were there in the same area. In a small side valley above Kwaja Chisht I saw three and six individuals on July 19 and a small flock of half a dozen appeared in the main valley between these two places on July 20. Some birds were noted north and south of the Sauzak Kotal, especially in the juniper forest of the pass. In the Bamian Valley I saw a single bird on September 26.

In Nuristan I did not see any Wood-Pigeons until April 20 when some 50 birds were feeding in the fields on the mountain slopes near Wama. In that same locality I saw five and another single bird on April 24 and May 1. At Pashki in the Parun Valley I found a single bird and half a dozen on May 17 and 28. The pigeon undoubtedly breeds in Nuristan, even though I was not able to prove this. The gonads were not in active condition in any of the birds I collected, but development had begun in those from Wama. The female from Pashki had a juvenile oviduct.

In Badakshan I saw a single adult at Kachari (2280 m.) on July 30. I have no further records from that province.

Obeh, W Afghanistan

12. vii. 49.
$$3 \cdot 16 \times 6$$
 we. 140 wi. 170

16. vii. 49.
$$\vec{\sigma}$$
 20×7 — 121 — 173

Mazar-i-Sharif, N Afghanistan

1. viii. 49.
$$\vec{0}$$
 15×5 — 121 — 169

The male collected July 12 is moulting body feathers.

In some of the specimens the rufous feather edges on the mantle are paler, in others they are darker. The same is true in a series from Bishe Porem in southwestern Iran, a region close to the type locality (Fao, Iranian Gulf) of arenicola.

The Common Turtle-Dove appeared in several parts of the Hari Rud Valley, and it was breeding there in July. It was observed at Herat, Tirpul, Obeh and Kwaja Chisht. In the side valley at Obeh it was quite common up to about 2300 m.

Between July 23 and August 3 it appeared several times in northern Afghanistan in the following towns and in suitable localities along the road between them: Qala Nau, Bala Murghab, Maimana, Andkhui, Mazar-i-Sharif and Haibak. Some of the birds I observed may have been *Streptopelia orientalis* but I never identified this species with certainty on this part of our journey.

(156). Streptopelia orientalis meena (Sykes) – Eastern Turtle-Dove Pashki, Nuristan

30. v. 48.
$$3 21 \times 5 - 165 - 195$$

5. vi. 48.
$$3 18 \times 7 - 190 - 190$$

9. vi. 48.
$$\bigcirc$$
 10 $-204 - 185$

Stiewe, Nuristan

Bamian, Central Afghanistan

19. ix. 49.
$$3 \cdot 6 \times 2 - 195 - 194$$
 juv.

3. x. 49.
$$\delta = 6 \times 1^{1/2} - 229 - 199$$
 juv.

The adult males collected on June 14 and 22 are moulting body feathers

May 8 several pairs were observed at Pashki. The testes of a bird which I collected measured 14×8 mm. They were rather numerous, mostly in pairs, until about May 18, when the migrating birds had presumably passed through the valley. The breeding birds were found up to an elevation of 2700 m. in open and mixed forest of Quercus balout, Pinus geradiana and Cedrus deodara or in grass covered glades with scrub and a few isolated conifers. The males I collected had gonads of maximum size and the female was ready to lay. On June 9 a bird was flushed from a nearly finished nest built in a stunted cedar. Around Stiewe (2600 m.) it was seen on several occasions between June 16 and 28 in the cultivated valley or in the scrub on the lower parts of the mountain slopes. The bird also appeared in several places in the Pech-Parun Valley as we made our way back at the end of July and the beginning of August. We shot a pair at Gusalek on August 2.

In Badakhshan I noted only one bird in the Kokcha Valley (Kachari, July 3), and a few in the Warduj Valley between Barak and Supian (July 13). I assume that these birds belonged to this species rather than to Streptopelia turtur, but I did not identify them with certainty.

At Bamian in central Afghanistan I saw on June 7 four turtle-doves which may have been the Eastern Turtle-Dove. During our investigations in this locality between September 6 and October 17, we saw single or at most four turtle-doves on several days, but none appeared after October 5. Both of the birds I collected were S. orientalis.

At Saroti Kotal, southeast of Gardez, I saw a single turtle dove on May 25. Presumably it belonged to this species, which WARDLAW-RAMSAY (1879: 449) said was common in eastern Afghanistan.

On June 27 I saw a turtle dove in the hotel garden in Farah. It was so close that the grey, not white, borders of the feathers on the neck patch were quite unmistakable.

(157). Streptopelia decaocto (Frivaldszky) – Indian Ring-Dove

Synonym: Streptopelia decaocto zarudnyi Serebrowskij, Compt. Rend. Acad. Leningrad 1927 A: 328 (1928 – Seistan, eastern Iran).

Iris dark red.

I have not been able to compare these specimens with those of S, d, stoliczkae; however, the measurements alone may exclude this form.

I never saw the Indian Ring-Dove during the winter in Kabul, but it was rather common in May and June, especially in the outskirts of the town. On May 23 I found two in the Logar Valley, but this was my only trip to that particular section of the country.

In southern Afghanistan it appeared here and there in the scrub along the river west of Kandahar on June 26. It was common at Girishk on May 4 and I saw it frequently at Lashkari-Bazar where there are trees along the Helmand (May 5-6). During our investigations in Seistan between March 24 and April 20 we observed half a dozen turtle-doves feeding together in the fields near Baqrabad on April 18. They undoubtedly belonged to this species. In the hotel garden in Farah I saw a number of the birds making courtship flights at the end of April. In this locality the bird was abundant on June 27, but I did not see it on our earlier visits in February, March, or at the beginning of April.

In western Afghanistan a few appeared in a willow grove near Shin Dand June 28–30. In July the bird was very common at Herat in the town, fields and poplar groves. Courtship flights were very frequent at the beginning of the month. During these flights the dove flaps aloft vertically and then glides down again in dashing spirals. The usual cooing sounds are Kookoo-'koo, kookoo-'koo. It gives another very characteristic call when it lands, one which in some way always reminded me of the voice of the Black-headed Gull. It did not appear elsewhere in the Hari Rud Valley.

In northern Afghanistan I found it only at Qala Nau and Bala Murghab at the end of July.

The Indian Ring-Dove did not appear in the higher parts of the Pech-Parun Valley in Nuristan. GRIFFITH (cf. WHISTLER 1945: 464) collected it, however, at Chigha Sarai where the valley opens into the Kunar Valley, and I may have glimpsed a single bird at Gusalek on August 2.

I have been unable to compare these specimens with material of either the Turkestan form, ermanni, or the Indian-Baluchistan form, cambayensis. Hartert found no constant colour difference between these two forms but separated them according to size. For ermanni he gave the wing measurements as 3 135–145 and 9 130–140, and for cambayensis 3 125–132, 9 121–129. According to these measurements, two of my females are typical cambayensis, while the third one, collected at Farah on April 27, has a wing length typical of ermanni. This bird may have been on migration despite its slightly enlarged sex organs, and it is distinctly paler than the other females from Farah. This pale colour is said, by some authors, to be characteristic of ermanni. On the other hand, the small female from Shin Dand is just as pale. These contradictory facts, together with the wing measurements of the females, may indicate that the birds were collected in a transitional zone. Meinertzhagen (1938: 710) refers two males from Haibak to ermanni and one from Jalalabad to cambayensis.

The Little Brown Dove was seen all the year round in Kabul, even during the hard weather of January 1949, and during the spring and summer it appeared everywhere in the town gardens.

In Kandahar it was also common, especially in the scrub along the river west of the town (June 26), and on a small wooded island in the Helmand near Lashkari-Bazar (May 6). In Girishk it was abundant in May.

I did not see any of the birds in the hotel garden at Farah during our first visit in February. On April 6 there were a few there, and by the end of the month the bird was abundant. On June 27 we saw a great number in this locality. A few appeared in a poplar grove near Shin Dand at the end of June. One female I collected was near laying. Only a few were in Herat at the beginning of July. I did not find the bird anywhere else in this part of the country except in the Obeh Valley at about 2000 m. where a few were present.

North of the main mountain range the Little Brown Dove appeared in the following towns at the end of July and during the beginning of August 1949: Maimana, Shibarghan, Aq Chah, Mazar-i-Sharif and Haibak. Several pairs were observed in Faizabad, Badakhshan, on July 11, 1948. All these Valley, northeast of Jalalabad, where he also says (p. 474) he saw "a parrot flying overhead" on April 17.

I eagerly looked for parrots in Nuristan and I also saw a few, but I never obtained a specimen. On May 3, just before we left Wama, I heard a scream, which undoubtedly came from a parrot. Our bearer asserted he had seen the bird and said it was a green one. Higher up the Pech-Parun Valley we never saw or heard parrots. On the return journey we again passed Wama on July 31 where I saw a few green parrakeets. Also at Atschenu, south of Wama, I observed a party of half a dozen which flew screaming up the valley. I was not able to identify them with certainty, but they were undoubtedly the slaty-headed which I think is the only species to be expected there.

- a. Cuculus canorus canorus Linné
- b. Cuculus canorus subtelephonus Sarudny
- a. Pashki, Nuristan

11. vi. 48.
$$3$$
 6×4 we. 117 wi. 228

Stiewe, Nuristan

b. Farah, SW Afghanistan

6. iv. 49.
$$36 \times 4 - 128 - 216$$

Shin Dand, W Afghanistan

30. vi. 49.
$$96 \times 4 - 84 - 208$$

Panjo, Central Afghanistan

12. vi. 49.
$$\stackrel{?}{\circ}$$
 5×4 — 98 — 221

Bamian, Central Afghanistan

8. ix. 49.
$$94 \times 3 - 91 - 200$$

As to colour and size the male from Pashki agrees with specimens of *C. c. canorus* from Denmark. In the two other males the grey-blue colour, especially of the breast, is decidedly paler; furthermore the wing measurements are rather small and the bands on the under parts are narrower. I therefore refer the birds collected outside Nuristan to the subspecies *sub*-

In the Parun Valley in Nuristan we heard the first Cuckoo near Pashki on May 7, 1948. From then on I observed it on many occasions until we left this camp on June 14. It was found all the way from the bottom of the main valley up to the tree limit where it was most common. Higher up the main valley, around Stiewe, I heard or saw it nearly every day between June 16 and 28. It was, however, rather scarce. The female collected on June 16 had an egg in the oviduct.

In the province of Gardez in western Afghanistan I observed the Cuckoo in Tera Kotal on May 23 and in Saroti Kotal on 25th. In eastern Hazarajat I saw a few individuals between Diwal Kol and Panjao June 11–17, 1949. At the last place it occurred as well in a willow scrub in the bottom of the valley as on mountain slopes without trees or scrub. At Bamian I saw only the female collected. In western Afghanistan we heard a single bird at Farah on April 5 and collected a male there the next day. At Shin Dand we saw a few June 28–30. From north of the main mountain range I have only a single record of a female at Qala Nau July 23.

(165). Bubo bubo turcomanus (Eversmann) – Eagle Owl Haibak, N Afghanistan

2. viii. 49. 3 7×4 wi. 426

The general colouration of this specimen is conspiciously paler than in Scandinavian birds. I have been unable to compare it with material of turcomanus (northern Transcaspia, Uralsk), zaissanensis (southern Transcaspia to Sinkiang) or bengalensis (India). However it is too pale to be referred to bengalensis which is said by some authors to be the form living in Afghanistan. A specimen collected in Kandahar by St. John is referable to turcomanus according to Whistler (1945: 295) of which zaissanensis may merely be a synonym. The specimen from Haibak does not show the oblique vermiculation on the under parts which is said to be characteristic of paradoxus, the type of which was collected in the Hari Rud Valley just north of the Afghan boundary.

We saw the Eagle Owl for the first time at Lashkari-Bazar, south of

When on July 18 we went by jeep from Obeh to Kwaja Chisht we passed a wall of conglomerate where I thought I saw an Eagle Owl in a hollow. We stopped and went up to the place where we found some pellets and some nest material. The bird, however, had disappeared. The specimen from Haibak sat in a hollow on a canyon wall and it was the only seen there. The stomach contained nothing but the tail of a large reptile.

(166). Athene noctua bactriana Blyth - Little Owl

Athene bactrianus Hutton, Jour. As. Soc. Bengal 16: 776 (1847 – Kandahar)

Logar Valley, W Afghanistan

Baqrabad, Seistan

27. ii. 49.
$$\overrightarrow{o}$$
 8×4 — — 166
17. iv. 49. \overrightarrow{o} 7×5 — 151 — 159
26. ii. 49. $\overrightarrow{\circ}$ 5 — — 169

Shin Dand, W Afghanistan

1. vii. 49.
$$3.5 \times 2 - 150 - 170$$

Herat, W Afghanistan

5. vii. 49.
$$3 \times 1 - 144 - 157$$
 juv. $0 - 155 - 158$

Obeh, W Afghanistan

11. vii. 49.
$$3 \times 4 \times 2 = 169 = 163$$

16. vii. 49.
$$3 \times 4 \times 2 = 172 = 165$$

Qala Nau, N Afghanistan

23. vii. 49.
$$3 \times 4 \times 2 = 138 = 167$$

Bala Murghab, N Afghanistan

26. vii. 49.
$$3 \times 4 \times 2 - 161$$

Bamian, Central Afghanistan

11. x. 49.
$$9 \times 4 - 172 - 174$$

Four of the adult males from July were moulting the body feathers. Two stomachs contained grasshoppers, one remnants of a small lizard.

This series shows in a very convincing way, how cautious one must be in estimating the geographical variation of this species. In the male collected on February 27 the upper parts are considerably darker and more brown

east of the Zagros which I referred to bactriana. All these five birds fall, however, within the range of individual variation exhibited by the three specimens from Seistan, and therefore they should all have been named bactriana. The upper parts in the specimen from Bamian are even darker and of a more reddish brown colour than in the dark Seistan specimen. This may merely be due to the fresh stage of the plumage.

We found the Little Owl in several localities, but it was nowhere numerous. In the mountains of Nuristan I never observed it.

In the upper Logar Valley, south of Hisarak, I collected on May 23 a female which sat on a telephone pole in a flat steppe-like part of the valley. It was an adult female which presumably was incubating or had young. In the Tarnak Valley, south of Kalat-i-Ghilzai, I saw two on February 17 and here one again on May 7. In some ruins south of Lashkari-Bazar we observed a single one May 5. Besides the specimens collected I only saw a few more in the ruins of Seistan. In the female from February 26 the largest follicle measured 5 mm. in diameter and the oviduct was much enlarged, however not at its maximum.

In western Afghanistan I saw two individuals between Shin Dand and Herat on July 1. The two birds from Herat were together with a third one; presumably a family party. They stayed in a ruined bridge over the Hari Rud. One of the birds from Obeh I shot at the clay cliff in the river bed where also *Columba eversmanni* had its nest holes.

In northern Afghanistan from July 23 to August 4 we observed a few Little Owls at Qala Nau, Bala Murghab, between Maimana and Andkhui, and east of Haibak. The specimen from this last locality was perched on a telephone wire among some *Falco naumanni*. At Bamian I saw only the specimen collected which was taken at 3000 m. in a narrow side valley.

(167). Strix aluco biddulphi (Scully) - Wood Owl

Gusalek, Nuristan

29. ii. 48. ♀ wi. 322

I have been unable to compare this specimen with material of biddulphi.

Baqrabad, Seistan

This specimen cannot be distinguished from Danish breeding birds.

One evening, some days before we collected the specimen above, we saw an owl which too was presumably of this species. On March 31, a very hot day, Madsen saw one sitting in the shadow of some scrub. No further records.

(169). Asio flammeus flammeus (Pontoppidan) - Short-eared Owl

On March 18 and 24 MADSEN saw a Short-eared Owl in the tamarisk scrub at the estuary of Farah Rud.

- a. Caprimulgus europaeus unwini Hume
- b. Caprimulgus europaeus plumipes Przewalski?
- a. Lashkari-Bazar, S Afghanistan

4. v. 49.
$$3 \cdot 10 \times 5$$
 we. 54 wi. 185 $3 \cdot 6 \times 4 - 57 - 195$

b. Balkh, N Afghanistan

30. vii. 49.
$$3 \cdot 2 \times 1 - 49 - 181$$
 juv.

In one of the males collected on May 4 the upper parts are a little paler than in the other; in both, however, they are considerably paler than in specimens from Scandinavia. In this respect, and as to the colour patterns of the two outermost primaries, they agree with the description of *unwini* which breeds from southern Turkestan to Baluchistan and Sind.

The general colouration of the juvenile bird from Balkh is quite different. Its brownish sandcolour reminds one to some extent of the colour in Caprimulgus aegyptius. I have not seen specimens of C. e. plumipes, the breeding bird of Sinkiang, but as it is a form with brighter colours than unwini and is said by HARTERT (2:850) to be a passage migrant in Afghanistan, this juvenile bird may belong to this subspecies. I think HARTERT took plumines as a passage migrant owing to a specimen obtained by

on June 14 a nightjar of this species from a willow scrub in the river bed.

— In the autumn at Bamian I only saw, on September 10, a single nightjar which also may have been of this species.

The juvenile bird, which I collected west of Balkh, was flushed from some grass about a foot high. In the stomach I found some seeds which presumably may have been swallowed by error while hunting insects in the grass.

(171). Caprimulgus aegyptius aegyptius Lichtenstein - Egyptian Nightjar Faizabad, Seistan

25. iii. 49. 3 7×4 we. wi. 204 29. iii. 49. 3 8×5 — 85 — 200 13. iv. 49. 3 8×4 — 93 — 208

I saw only the specimens collected. They are the first obtained in Afghanistan. One was collected in a desolate area between cultivated fields around Faizabad, another in an area with dunes and scattered scrub about a metre high. The testes were enlarged and injected in the last two birds collected. Whether they were on their breeding ground or not I cannot tell with certainty. However, undoubtedly the species does breed there, as SARUDNY (1903: 186) found it to be a very common breeding bird in the Iranian part of Seistan. He collected three specimens there between June 3 and 18 and a clutch of two eggs almost at the hatching point on June 17. According to the same author it also was one of the common breeding birds in the Hari Rud Valley between Pech Robat and Kafir Qala (= Islam Qala). The nightjars of Seistan need, however, further investigations as Cumming (1905: 690) found C. mahrattensis very common in this province and he observed only this species. In contrast to CUMMING, SARUDNY did not observe this nightjar until he entered the southern part of Iranian Baluchistan.

(174). Apus melba tuneti Tschusi – Alpine Swift

Tangighoru, Kabul

30. v. 49. 3 we. 80 wi. 219

The upper parts of this specimen are just as pale as in four specimens

development. At this time, however, the birds presumably are in their breeding area. In the last part of August and in September 1948 I saw parties of 10–20 individuals on several occasions circling over Kabul. The next year, however, I observed only few of this swift here between August 10 and September 4.

At Siah Gird in the Ghorband Valley I saw a single bird on June 1, 1949. In Nuristan I never observed it and the same was the case at Bamian and all other places in central Afghanistan visited during the breeding season.

A few birds, presumably on passage, appeared at Farah between April 24 and May 2 and at Ghazni on May 10.

(175). Apus apus pekinensis (Swinhoe) – Common Swift Faizabad, Seistan

13. iv. 49.
$$3$$
 7×4 we. 41 wi. 172
20. iii. 49. 9 6×6 — 47 — 173
8. iv. 49. 9 7×5 — 46 — 171
 9 7×5 — 39 — 172

I have been unable to compare with material of *pekinensis* but compared with four June specimens from Sweden the upper parts, especially the crown, are slightly paler in the Afghan birds, which are undoubtedly referable to *pekinensis*.

Nuristan: In the spring of 1948 the first Common Swifts were seen by EDELBERG on April 16 at Wama in the Pech-Parun Valley. On 22th I saw four over the oak forest and two days later hundreds over the valley at 3 p. m. The next days we only observed a few. Again on May 2 half a hundred were hunting over the valley. At Pashki (2300 m.) I occasionally saw between May 8 and June 14 a few to a dozen or two circling over the valley. In the morning of June 9 it was more numerous than usual but many were so high up in the air that I could not count them with certainty. Farther up the valley, at Stiewe, I made only a few observations in the last part of June. On our return journey from Badakhshan we saw on July 22 and 23 a few swifts between Weran Kotal and Pashki. These

July 5 about 25 at Sar-i-Ab, the 15th a dozen near Zebak and the next day 20 at Magnaol.

Southern Afghanistan: In the spring of 1949 we observed the migration in southwestern Afghanistan. On March 20 we saw the first birds when about a dozen individuals twice passed Faizabad in a north-eastern direction. During the rest of the month we saw only a few. On April 3 we observed two parties of about 50 and 100 between Farah and Dilaram, on 5th a single bird at Dilaram, on 6th a rather heavy migration over Farah, between 8th and 18th occasionally a few birds or small parties were seen at Faizabad, and on 24th and 26th and on May 1–2 parties of up to half a hundred over the river near Farah. On May 4 we saw a few over the Helmand, south of Girishk, they may also have been on migration.

Eastern Afghanistan: At Ghazni it undoubtedly breeds for we saw some over the town on May 10 and June 24. A few birds that were presumably breeding were seen below Tera Kotal, north of Gardez, on May 23, in the Wardak Valley on 26th, and several together with *Apus melba* at Tangighoru east of Kabul on the 30th.

Central Afghanistan: On a drive up the Ghorband Valley and over the Shibar Kotal on June 1-2 we observed several and in the Bamian Valley a few on 4th and 5th. In eastern Hazarajat we saw a few between Diwal Kol and Panjao on June 11 and the next day half a dozen high over the valley at Panjao.

Western Afghanistan: I saw two over the river at Shin Dand during the breeding season on June 29 and on July 7-8 a few flying around the famous minarets in Herat, where they presumably bred.

On our trip through the northern Afghanistan from July 22 to August 6 we made no observations of the Common Swift.

(176). Apus affinis galilejensis (Antinori) – Indian Swift Farah, SW Afghanistan

1. v. 49. 3 8×4 we. 21 wi. 132

I have been unable to compare this specimen with other material. A. a. galilejensis is, however, the only subspecies which is likely to occur

circling on high. They were too high for identification but half a dozen which came down over the road were at any rate affinis. Later the same day we saw several over the Murghab River from the surface of which they caught insects.

The Indian Swift is known to breed in the Kandahar area (St. John 1889: 156). All our observations may, however, have been of birds on passage to or from their breeding places in Transcaspia.

(177). Ceryle rudis leucomelanura Reichenbach - Pied Kingfisher

? Synonym: Ceryle rudis afghanistanica Koelz, Proc. Biol. Soc. Washington 52: 79 (1939 - Laghman, Afghanistan)

Jalalabad, E Afghanistan

14. ii. 48. ♀ 2 wi. 139 bs. 58

This specimen is from the same river system from which the type of afghanistanica came. I have been unable to compare it with material from Ceylon, the type locality of leucomelanura; it does not, however, differ from one specimen collected in Tranquebar and a few others from the range of leucomelanura.

The specimen of the Pied Kingfisher collected was shot by an American friend and brought to me fresh. I myself saw a few of this kingfisher at Darontah northwest of Jalalabad on February 20. I observed it again a few times along the Pech River at Murchal between February 29 and March 26. Not seen elsewhere in Nuristan.

(178). Alcedo atthis pallasii Reichenbach - Common Kingfisher Shin Dand, W Afghanistan

30. vi. 49.
$$3 \times 2$$
 we. 26 wi. 75 bs. 32

Bamian, Central Afghanistan

10. ix. 49.
$$3 \times 1 - 29 - 74 - 35$$

14. x. 49.
$$3 1^{1}/_{2} \times 1 -29 -75 -36$$

27. ix. 49.
$$0$$
 — 28 — 75 — 33

The upper parts and especially the under parts in these Afghan birds are decidedly paler than in specimens of true A. a. atthis. As H. IOHANSEN

along the river at Farah April 21–30, a single one at Shin Dand on June 30, and a few along the river at Herat in the beginning of July. In Afghan Turkestan I observed single birds east of Mazar-i-Sharif on August 1, 1949 and at Faizabad on July 11, 1948. In Nuristan I recorded only a single bird at Gusalek on February 27. I also saw one in Maidan Valley southwest of Kabul on June 19, and at Bamian in the autumn of 1949 one to three birds along the river on several days between September 7 and October 14.

(179). Halcyon smyrnensis smyrnensis (Linné) - White-breasted Kingfisher

The only preceding record of the White-breasted Kingfisher in Afghanistan is by Griffith (1847: 471) who (March 31, 1840) writes that it occurs at Kunar. Not very far from this locality, at Darontah northwest of Jalalabad, I saw a single one flying along an irrigation canal in cultivated fields on February 20, 1948.

(180). Merops apiaster Linné - Common Bee-eater

Faizabad, Seistan

10. iv. 49.
$$9.6 \times 4$$
 we. 51 wi. 148

Shin Dand, W Afghanistan

Obeh, W Afghanistan

15. vii. 49.
$$3 \times 2 = 56 = 157$$

13. vii. 49.
$$\bigcirc$$
 — 47 — 148 juv.

15. vii. 49. 0
$$-49 - 138$$
 juv.

Haibak, N Afghanistan

2. viii. 49.
$$\ \ \, \stackrel{\bigcirc}{\circ} \ \ \, 5 \times 3 \ \ \, - \ \ \, 48 \ \ \, - \ \ \, 142 \ \text{juv}.$$

$$0 \qquad \qquad - \ \ \, 45 \ \ \, - \ \ 144 \ \text{juv}.$$

The two juvenile birds from Haibak and the adult male from Obeh are moulting the body feathers.

The Common Bee-eater is a summer visitor and a numerous passage migrant to many parts of Afghanistan. In 1949 the spring migration took place from the beginning of April to the beginning of May. At Faizabad in Seistan we observed the first arrivals, half a dozen, over the Farah Rud on April 10, thereupon three on the 13th and a dozen on the 18th.

May. – During the spring of 1948 I did not see a single bee-eater in central Nuristan which seems to be outside the migration "routes".

I never observed the autumn migration but most likely it takes place in August since I saw rather many bee-eaters all the way from Doab over the Shibar Kotal and through the Ghorband Valley to Kabul on August 7, but only two when I returned the same way to Bamian on September 5. The next day at 5 p. m. I saw half a dozen pass down the Bamian Valley at a considerable height. These were the only bee-eaters I observed at Bamian where we stayed until October 17.

During the breeding season from the end of May to the beginning of August I observed the bee-eater at the following localities:

Eastern Afghanistan: On June 1 I saw it at many localities from Kabul through the Ghorband Valley to Doab. At Siah Gird they came out from nest holes in a slope close to the road. — Often seen over Kabul and its vicinity at the end of May. It was not very numerous on May 26 between Kabul and Wardak or on June 19 between Maidan and Kabul. In the Logar Valley I only saw it near Hisarak (— Pul Alam) May 23 and 26. None in the Gardez area.

Southern Afghanistan: On June 24–25 we saw it here and there along the road from Kabul to Kandahar. Just west of Kandahar we found it rather common, but we saw none at Girishk or farther west until at Farah where there were a few near the hotel garden on June 27.

Western Afghanistan: At Shin Dand June 28–30 I saw only a few. Between this village and Herat it was again more numerous, especially in a hilly country which we passed. It was rather common around Herat in July, and I also saw it near the Ardewan Kotal on July 6. In the very broad valley west of Herat we only met one bee-eater on a trip to Islam Qala. Contrary to this it was numerous in the valley east of Herat, at any rate as far as Kwaja Chisht. At Obeh we also found it numerous up through the side valley where small parties of adult and young birds ascended to an altitude of 1900 m.

Northern Afghanistan: We saw numerous small and large parties all the way through the hilly country from Oala Nau over Bala Murghab

between Faizabad and Barak in the middle of July. At the first of these places I found their nest holes under the same circumstances as at Siah Gird. They had fledged young on July 11. In the valleys above Barak no bee-eaters were seen. None in central Nuristan during the breeding season.

Central Afghanistan: During our stay at Panjao in Hazarajat June 12-17 we only saw a single bee-eater.

(181). Merops superciliosus persicus Pallas – Blue-cheeked Bee-eater Farah, SW Afghanistan

29. iv. 49.
$$\stackrel{4}{\circ}$$
 6×4 we. 53 wi. 162
 $\stackrel{5}{\circ}$ 6×4 — 49 — 160
 $\stackrel{?}{\circ}$ 3 — 49 — 151
 $\stackrel{?}{\circ}$ 2 — 45 — 154

Andkhui, N Afghanistan

Chasma-i-Sher, N Afghanistan

5. viii. 49.
$$3.4 \times 2 - 46 - 159$$

The plumage of the female from Andkhui is very worn, but new body feathers had started to grow.

We saw the first half dozen Blue-cheeked Bee-eaters at Farah on April 29; twenty on May 2; the next day a few among the foothills west of Dilaram, and at Lashkari-Bazar on 4th and 5th. The next two days it was more numerous at Girishk and between Pirzada and Kandahar. North of this town they disappeared and we did not see any on our travels to Kabul and central and eastern Afghanistan in May and June. Going down to Kandahar we again saw several just north of that town on June 25 and four single birds near Girishk the next day. Thereafter we did not see it in all western Afghanistan, and in the north not until July 28, in the steppe 50 km. south of Andkhui. There, adults and young in small parties were rather numerous toward Andkhui. It was, however, very local (migration?) since we observed none again until we reached Chasma-i-Sher on the Danaghori plains. According to Meinertzhagen (1938: 696) it is breeding here, but in the beginning of August we saw only a few birds.

Shin Dand, W Afghanistan 30. vi. 49. 3.5×3 we. 151 wi. 189 29. vi. 49. ♀ -127 - 184Herat, W Afghanistan 2. vii. 49. $3 \times 6 \times 4 = 124 = 198$

Maimana, N Afghanistan

-105 - 185 juv.28. vii. 49. \circ 3×2

Bamian, Central Afghanistan

— 100 — 195 juv. 24. ix. 49. ♀

These specimens represent the pale, eastern form semenowi.

In 1949 we observed the spring migration of the Roller in southwestern and southern Afghanistan. I saw the first arrival in the hotel garden at Farah on April 28, and on the next day about a dozen. The sex organs in the two birds collected were rather undeveloped. Along the road from Farah to Girishk it was the most common bird on May 3, perching on the telephone wires all the way through the desolate foothills east of Farah as well as through the steppe. On the 4th and 5th it was numerous at Lashkari-Bazar and Qala Bist, and on the 7th farther east to Kandahar, but decreasing in number when on that date we drove up the Tarnak Valley. Between Mukur and Kabul on the 10th I saw only a few.

Eastern and southern Afghanistan: During the breeding season it was rather scarce in the higher parts of the country. On a trip in eastern Afghanistan from Kabul to Gardez and the Saroti Kotal May 23-26 we saw only a few at Hisarak (= Pul Alam) and a single one at Maidan. Between Kabul and Kandahar there were only very few on June 24-25 and none the next two days between Kandahar and Farah where it was so numerous in the beginning of May. At Farah a few on the 27th.

Western Afghanistan: I saw about a dozen in a willow grove at Shin Dand June 28–30. The sex organs in the two adults collected here had regressed to nearly the quiet stage. The female was moulting the body feathers. At Herat it was rather numerous in the beginning of July. Nest holes were found in the same clay cliffs where also Columba eversmanni was breeding. The parents were feeding the young which I could hear chirping Between Bala Murghab and Maimana it was especially numerous and sat everywhere on the telephone poles and in the few trees (beginning of the migration?). It was also common east of Mazar-i-Sharif and at Haibak, August 1–3, but less numerous. Further we saw it on many localities August 4–6 between Haibak and Doab, north of Darra-i-Shikari, where we also saw a few on June 3.

Central Afghanistan: We saw a single bird in the valley west of the Shibar Kotal on June 2 and one between the Unaï Kotal and Panjao on the 11th.

Nuristan: I did not see it in the Pech-Parun Valley during all the spring and summer of 1948, with the exception of a single bird between Gusalek and Rechalam on August 6.

Badakhshan: After having crossed the Hindukush we did not observe the roller until we came down to the lower valleys where the first was seen north of Iskan in the Kokcha Valley at an altitude of about 1500 m. It had a nest hole in a conglomerate wall. The same was presumably the case with one at Faizabad which flew with food on July 11. Besides these we saw only a few around the town as well as in all the parts of the province visited. In the Warduj Valley we observed it only below Supian.

Bamian: During our stay in Bamian from September 6 to October 17 we recorded no autumn migration. Single birds occurred on several days until September 30, but never more than two in all were seen on the same day.

- a. Upupa epops epops Linné
- b. Upupa epops orientalis Baker
- a. Baqrabad, Seistan

25. ii. 49.
$$3 \times 4 \times 2$$
 we. wi. 146

Faizabad, Seistan

29. iii. 49.
$$36 \times 5 - 70 - 149$$

Baqrabad, Seistan

b. Pashki, Nuristan 28. v. 48. $3 6 \times 4$ we 65 wi 142 Stiewe, Nuristan 22. vi. 48. $3 5 \times 3 - 65 - 148$

In the two males collected in February and March the crest feathers are growing as are tail feathers and some secundaries in the specimen from March, and neck feathers in that from February. The female from March is moulting the rump feathers, and the female from October the whole body feathers.

The birds collected outside Nuristan I refer to the nominate form although their general colouration is a little darker. In the two specimens from Nuristan, however, the upper parts are much darker, the breast also is darker and of a more reddish-brown tint, and the crest feathers have only traces of white spots. Dr. Vaurie has kindly compared these two specimens with material of *orientalis* and he informs me that they are not quite typical but come closer to this subspecies.

Specimens collected in December and through the whole of February seem to indicate that some Hoopoes may spend the winter in the lower parts of Afghanistan. Whether they are residents, as SWINHOE believed, or visitors from northern countries is not known. They are, however, not numerous at this time of the year as I spent February 18–22, 1949, in Kandahar and Farah and on journey between these two towns and never saw more than a single bird which appeared on the 20th about 20 km. west of Kandahar. On the same date of 1948 I saw two at Darontah near Jalalabad.

From February 24 to April 21, 1949, we stayed at the lower Farah Rud in Seistan during which the spring migration may be expected to occur. It was rather obscure, however. I saw a single bird south of Farah on February 28, one again at Baqrabad March 3, two on the 8th, and a few the next day. On the 12th we had our largest record with 3, 2, and 1 birds. On most of the following days until 28th we recorded one to two individuals and then single birds on April 2-6 I observed half a dozen birds along the road.

From the beginning of May to the beginning of August, during which time the birds may be expected to be on their breeding grounds, the Hoopoe was nowhere abundant, even if present in nearly all the places which we visited in Afghanistan: in the hot areas at Kandahar and Andkhui; up in the Unaï Kotal at an altitude of 3100 m., and in the Shibar Kotal; in the fertile valleys of Nuristan; in tamarisk scrub and poplar groves in the broad Hari Rud Valley; as well as in the desolate foothills of Afghan Turkestan.

It is not necessary to give a detailed list of all the localities where we found the Hoopoe during the breeding season, but a few observations from the northeastern parts of the country may be of some interest. In the Pech-Parun Valley we saw only very few birds. At Pashki I often saw 1–2 pairs at a locality with scattered poplars in the bottom of the valley. On May 27 two of the birds were fighting. (I observed the same thing in the Unaï Kotal on June 10, 1949, and at Herat in the first week of July.) At Stiewe only a few observations were made of this bird. During our trip from Stiewe over the Weran Kotal to Badakhshan I did not see the Hoopoe until we came down to an altitude of about 2000 m. in the lower Kokcha Valley. When we returned up the Warduj Valley we saw the last one before we reached Zebak (2400 m.). As mentioned earlier, we found it at considerably higher altitudes in other parts of the country.

During our stay at Bamian September 6 to October 17 we recorded no pronounced migration. Single birds or pairs appeared on several days until October 8.

(185). Jynx torquilla torquilla Linné - Wryneck

Pashki, Nuristan

8. v. 48. 9 8×5 wi. 86

This specimen agrees exactly with breeding birds from northern Europe. The Wryneck is known only in Afghanistan as a bird of passage. We observed it twice. In addition to the specimen collected EDELBERG saw a single bird in the Kunar Valley in Nuristan on March 2, 1948.

Obeh, W Afghanistan
17. vii. 49.
$$3 - 6 \times 4$$
 we. 158 wi. 165 bs. 40
b. Gusalek, Nuristan
29. ii. 48. $9 - 10 \times 7$ — 170 — 164
Wama, Nuristan
5. iv. 48. $3 - 9 \times 4$ — 185 — 173

I have been unable to compare the material with topotypical specimens of the two forms, but the birds from Herat and Obeh differ from the two Nuristan specimens, which presumably are typical squamatus, as they show the characters which are said to distinguish this race from flavirostris. They are both in the postnuptial moult and the old feathers of the back are strongly faded, the new ones have a fresh green colour which, however, is not as dark as in the specimens from Nuristan. Further, in the birds from western Afghanistan the banding of the secondaries is much more pronounced, the subterminal bands on the under parts much fainter, and the wing measurements and weights conspicuously smaller than in the Nuristan birds. I therefore refer them to flavirostris.

In western Afghanistan I found the Scaly-bellied Green Woodpecker only in the Hari Rud Valley where I saw only the two specimens collected. The first one I shot in a poplar grove near Herat, the next one at an altitude of about 2300 m. in the side valley at Obeh. It was perched in the trees in the bottom of the valley from where it flew up the slopes and there settled down in the scrub or sometimes on the bare rocks. Presumably its nest was in an abricot tree a little farther down. The nest hole was about 3 m. up the trunk.

At Gusalek in Nuristan I observed only the specimen collected. At Wama I saw and heard it a few times in the *Quercus* and coniferous woods. Its voice is very like that of *Picus viridis*. The stomach of the specimen collected on February 29 was full of small black ants. I did not see this woodpecker at Pashki or higher up the Parun Valley.

I saw this woodpecker only in northern Afghanistan at Faizabad, Jurm and Supian (altitude 1800 m.) between July 7 and 13, 1948, and at Haibak on August 2, 1949. In Faizabad I saw and heard the bird on several occasions, but at all the other localities only single birds were seen.

(188). Dendrocopos himalayensis albescens Baker – Himalayan Pied Woodpecker

```
Gusalek, Nuristan
      20. iii. 48. 3 ?
                       we. 74 wi. 136 (3!)
Wama, Nuristan
      14. iv. 48. 3 7 \times 4 - 72 - 137
      -65 - 133
               9 4
      14. iv. 48. Q 3
                      -65 - 128
       3. v. 48. ♀ 3
                       -64 - 131
                       -67 - 131
       8. v. 48. ♀ 2
Pashki, Nuristan
       1. vi. 48. \sqrt{3} 4×2 - 72 - 132
               9 \times 4 - 64 - 131
```

I have been unable to compare this series with topotypical albescens; there can, however, be little doubt that it belongs to this subspecies.

The Himalayan Pied Woodpecker I found only in the Pech-Parun Valley in Nuristan. In the Gusalek area I saw a few individuals on March 19–20 while visiting the deodar forest which begins here at an altitude of about 2000 m. Around Wama it was more numerous and occurred in different habitats such as walnut trees in the fields and in the oak and coniferous forests. At Pashki too, it was a rather common bird, and I also found it here on grass clad slopes with scrub and scattered conifers as well as in the hazel scrub in the bottom of the valley. At Stiewe, which is situated above the forest region, I saw it twice in the trees around the village and along the river.

On April 5 I heard two individuals calling each other with a persevering tri-tri-tri-tri. One of the birds had a powerful voice, the other a weaker one. Drumming I heard for the first time on April 14, it was produced by

(189). Dendrocopos auriceps (Vigors) – Brown-fronted Pied Woodpecker D. brunnifrons auct.

Wama, Nuristan

The Brown-fronted Pied Woodpecker is known in Afghanistan from Nuristan where Griffith collected a female at Pashat (Whistler 1945: 289) and presumably saw another bird in the oak forest above Chagha Sarai on March 7 (1847: 465). I saw it three times in the Pech-Parun Valley where it is much less abundant than *D. himalayensis*. The first time I saw it was up in the deodar forest (ca. 2000 m.) above Gusalek on March 10. The female from Wama I collected in the oak forest at an altitude of 1700 m. A second individual, presumably the male, was with it. Inspection of the sex organs revealed that the female would have commenced laying within a few days. On the first May I saw a male, also in the oak forest. My few observations give no details about a difference in habitat preference of the two species of pied woodpeckers.

(190). Ammomanes deserti - Desert Finch-Lark

- a. Ammomanes deserti orientalis Sarudny and Loudon
- b. Ammomanes deserti iranica Sarudny
- c. Ammomanes deserti phoenicuroides Blyth
- a. Bala Murghab, N Afghanistan

24. vii. 49.
$$3 10 \times 5$$
 we. 27 wi. 109
 $3 3 \times 2$ — 25 — 99 juv.
 $3 1^{1}/_{2} \times 1$ — 28 — 105 juv.
 $3 2 \times 1$ — 25 — 103 juv.

Maimana, N Afghanistan

27. vii. 49.
$$3 \quad 6 \times 4 \quad -29 \quad -109$$

 $9 \quad 4 \times 2 \quad -23 \quad -98 \text{ juv.}$

b. Baqrabad, Seistan

26. ii. 49.
$$\bigcirc$$
 5×3 — — 100

Faizabad, Seistan

27. iii. 49.
$$\bigcirc$$
 6×4 — 24 — 99

Shin Dand, W Afghanistan

1 vii 49
$$\stackrel{1}{\Rightarrow}$$
 6×4 $\stackrel{27}{=}$ 27 $\stackrel{106}{=}$

The specimens represent three different subspecies. In both the adult and juvenile birds from Bala Murghab and Maimana in northern Afghanistan the upper parts are considerably paler than in the rest of the series; they are even paler than 6 specimens of *cheesmani* from Salehabad and Kulmahak in southwestern Iran (Paludan 1938, Jour. Orn. 86: 597, sub nomen *fratercula*). In his comprehensive review of the Asiatic larks Vaurie (1951, Bull. Am. Mus. Nat. Hist. 97: 459) refers the pale birds from northern Afghanistan to *orientalis*.

The birds from Seistan and those collected between Shin Dand and Herat in western Afghanistan are the darkest of the series. The different seasons taken into consideration, they compare rather well with one female and one male of *iranica* collected in Kainat, eastern Iran, on September 19 and 22.

In both specimens from Jalalabad the upper parts are slightly paler, more greyish than in the specimens of *iranica*. I think these two specimens are probably *phoenicuroides* but this form requires further study because, although VAURIE had some specimens that were brown and lacked the characteristic grey tinge of *iranica*, he also had one that was grey and which he says is not separable from the latter. This specimen is probably similar to my two specimens from Jalalabad which are even more greyish than my specimens of *iranica*.

The adult birds from July 1 are in very worn plumage. Of the young birds from the same date one is in the complete juvenile moult. In the adult male from July 24 the feathers on the head are growing.

We occasionally saw the Desert Finch-Lark along the road from Dilaram over Farah south to Salian in Seistan on February 21–23. On the steppe around Faizabad and Baqrabad on the lower Farah Rud it was very scarce. I think I saw only the two specimens which we collected. Their gonads were at an inactive stage. On May 3 we saw a few pairs in deserted stony foothills east of Farah and on the 6th some between Girishk and Pirzada. When on July 1 we drove from Shin Dand to Herat we found it numerous at an altitude of about 1400 m. on stony slopes in the foothills. Here it was mostly in small groups of 3–6 birds, presumably family

on August 1. Around this latter town it occurred both on loamy slopes and in canyons but it was rather scarce.

Along the road from Kabul over Saroti to Jalalabad it was rather common on February 19, 1948, where the road follows the Kabul River through a narrow valley or over a broad and steppe-like vale. At Darontah near Jalalabad it appeared on the driest and most stony parts of the valley. I also saw it in the Kunar Valley on February 22.

(191). Alaemon alaudipes doriae Salvadori – Desert Lark (Bifasciated Lark). Bagrabad, Seistan

 $9 8 \times 4$ we. 26. ii. 49. wi. 130 bs. 27 Faizabad, Seistan $39 \times 5 - 51 - 143 - 30$ 21. iii. 49. 0 specimen in alcohol $3 6 \times 5$ we, 50 wi. 143 bs. 31 9. iv. 49. ♂ 8×5 — 49 — 139 — 30 $8 \times 5 - 47 - 139 - 31$ $8 \times 6 - 48 - 140 - 28$ $9 \times 6 - 47 - 139 - 29$ laying -47 - 124 - 26-46 - 127 - 253 Dilaram, S Afghanistan 21. ii. 49. $3 \times 4 \times 2 = -142 = 27$

I have been unable to compare these specimens with topotypical doriae. According to Vaurie (1. c. p. 466) all birds from Iran, Afghanistan and Sind belong, however, to this subspecies.

The Desert-Lark occurs only in southern Afghanistan. I saw single birds in the Tarnak Valley, 40 km. north of Kandahar, and near Pirzada west of Kandahar, on May 7, and 2-1-1 birds along the road east and west of Girishk on June 26. Near Dilaram we observed a few single birds or pairs on February 21, April 3, May 3, and June 27. On the steppe between Farah and Hamun-i-Sabari we found it in several localities during our stay in that area February 27 to April 20, but it was not very numerous

the sex organs were enlarged, however not to their maximum size. Presumably this female had already passed laying.

I often saw the males perched on small knolls from where they started the courtship flight. This was preceded by two whistling and lengthy $dj\ddot{u}$, $dj\ddot{u}$ which reminded me someway of the melancholy whistle of the Golden Plover in the heather "deserts" of Jutland. After this introduction the Desert Lark ascended vertically 5–8 m., maked an oblique volt and descended again vertically with full stretched wings and uttering a continuous $dj\ddot{u}$ - $dj\ddot{u}$ - $dj\ddot{u}$ - $dj\ddot{u}$. At this time of the year it was rather easy to find the bird if one went out before the temperature had risen too much. On other occasions it may be rather difficult to find it because it is a strong runner and prefers to disappear on foot.

(192). Calandrella rufescens subspecies ? – Lesser Short-toed Lark Mukur, E Afghanistan

8. v. 49.
$$3 \quad 6 \times 4 \quad \text{we. 23} \quad \text{wi. 97}$$
 $3 \quad 7 \times 4 \quad -20 \quad -99$
 $3 \quad 10 \times 6 \quad -23 \quad -104$
 $3 \quad 9 \times 5 \quad -22 \quad -99$
 $4 \quad \text{laying} \quad -27 \quad -97$

Dr. Vaurie has kindly compared these specimens which he found have a different bill, shorter than persica (synonym seistanica Sarudny & Loudon, Orn. Jahrb. 15: 222 (1904 – Seistan)), and show less white in the tail but otherwise are identical in colouration with specimens from Seistan in exactly the same plumage. He has informed me, however, that they are apparently not the same as the specimens he had examined (1951, Bull. Am. Mus. Nat. Hist. 97: 468) also from Mukur but collected in October, not in May. He says that in his specimens the bill is even shorter than in mine. The breeding population at Mukur may represent a new subspecies but the material at hand is too scanty to warrant the description of a new form.

On the drive May 7, 1949, from Kandahar up through the Tarnak Valley we observed some unidentified Calandrella. At Mukur we went out to

Mukur was the only place where we identified this species with certainty. SARUDNY and LOUDON found it "in enormen Mengen" in Iranian Seistan. In spite of the considerable number of *C. cinerea* which we collected in Afghan Seistan we never succeeded in recording the Lesser Shorttoed Lark there.

(193). Calandrella cinerea longipennis (Eversmann) – Short-toed Lark Lower Farah Rud, Seistan, 10. iii.—10. iv. 49.

Weight 23
$$33$$
: 19-25 (22,3); 9 9 : 19-22 (19,9) Wing 24 33 : 91-98 (93,8); 9 9 : 85-90 (87,7)

Dilaram, S Afghanistan

21. ii. 49.
$$3 \times 1$$
 we. wi. 92

Herat, W Afghanistan

6. vii. 49.
$$3 \times 1 \times 1^{1/2} - 18 - 86$$
 juv.

Mukur, E Afghanistan

8. v. 49.
$$\bigcirc$$
 2 — 19 — 85

Bamian, Central Afghanistan

14. x. 49.
$$\bigcirc$$
 3×2 — 20 — 90

Dr. Vaurie has kindly compared the specimens from the breeding season and found that they are closer to *longipennis* than to *artemisiana*. In the spring series from Seistan there is a slight variation as to the colour of the upper parts which in some specimens is more greyish, in others more brown, but Vaurie believes, however, that they are all probably *longipennis*.

On February 16–17, 1949, on our drive through snow covered valleys from Ghazni south to Kandahar we saw several flocks of small larks which we did not identify with certainty. Between Dilaram and Farah on 21st we observed similar flocks and a bird, which we collected, turned out to be a Short-toed Lark. At the beginning of our stay in Seistan I saw nothing of this lark, presumably because the fields around Baqrabad were very dry and abandonned. However, when on March 10 and 14 I visited the more fertile fields around the neighbouring village Faizabad I found it to be rather numerous there. On these two days I collected 10 birds of which 9

to Girishk and back again on April 2-7 we saw still small flocks at several localities. After the 11th we observed none around Faizabad.

In eastern Afghanistan we collected at Mukur on May 8, 1949, an adult female in the same dry fields (Fig. 11) with C. acutirostris and C. rufescens. An examination of the gonads revealed an ovary which measured 6×3 mm. and in which the largest follicle was 2 mm. in diameter. The wall of the oviduct showed some thickening, but it was far from the maximum size.

In the valley south of the Ardewan Kotal, north of Herat, I collected a juvenile male on July 6, 1949, at the same place with *C. acutirostris*.

MEINERTZHAGEN (1938: 512) says that the females he collected at Danaghori in Afghan Turkestan were almost certainly breeding there. The two birds I collected at Mukur and near the Ardewan Kotal may indicate that the species also breeds south of the central mountain ridge. These records increase the zone of overlap between *C. cinerea* and *C. acutirostris*.

The bird from Bamian, October 14, I collected in harvested fields out of a flock of about 20. When I flushed these birds, I did not notice the bell-like sound which I usually heard from the parties of *C. acutirostris*. These birds in Bamian were the only ones I saw on autumn migration.

(194). Calandrella acutirostris acutirostris Hume – Hume's Short-toed Lark

Mukur, E Afghanistan

8. v. 49.
$$\stackrel{?}{\circ}$$
 7×4 - 21 - 92

Maidan, E Afghanistan

26. v. 49.
$$\stackrel{?}{\circ}$$
 6×3 - 21 - -

Unaī Kotal, Central Afghanistan

10. vi. 49.
$$3 \times 5 - 23 - 93$$

 $3 \times 7 \times 5 - 21 - 91$
 $2 \times 2 - 20 - 90$

Panjao, Central Afghanistan

6. vii. 49.
$$3 \quad 7 \times 5 \quad -21 \quad -91$$
 $3 \quad 7 \times 5 \quad -21 \quad -95$
 $3 \quad \frac{1}{2} \times \frac{1}{2} \quad -23 \quad -89 \text{ juv.}$

$$9 \quad 6 \times 3 \quad -17 \quad -86$$

Obeh, W Afghanistan

20. vii. 49.
$$3 \times 2 \times 1 = 21 = 85$$
 juv. $2 \times 1 = 21 = 83$ juv.

All the adult specimens from the end of May to July 1 are in worn plumage, the post nuptial moult having not yet started. Those from September are in fresh plumage in which one or two of the outer primaries are still growing in the birds from the 6th and 7th. In one of the males collected on September 6 the growth of the body feathers had not been completed.

I have not been able to compare this series with topotypical acutirostris or with specimens from other parts of the breeding area. VAURIE (1. c. p. 477), however, provisionally refers the populations of Afghanistan to nominate acutirostris to which it seems closest.

MEINERTZHAGEN (1938: 512) found Hume's Short-toed Lark breeding in Unaï Kotal, Shibar Kotal, and in the Ghorband Valley; and Koelz (Vaurie 1. c.) collected it as far west as at Sufak in the Band-i-Turkestan. My own investigations from Shin Dand and Ardewan Kotal show that it breeds still farther to the west in Afghanistan.

Eastern Afghanistan: The adult male from Mukur I collected in dry, uncultivated fields at the border of the oasis where I also collected the two other Calandrella species (Fig. 11). The testes were near their maximum size and the vesiculae seminalis were somewhat enlarged. At Gardez we also found it in fallow fields. The sex organs in the birds we collected here were enlarged but not at their maximum stage.

Central Afghanistan: On June 10 we found it at an altitude of about 3100 m. both east and west of the Unaï Kotal. In the two males we collected the testes were at their maximum size and also the vesiculae

several in cultivated fields in the Bamian Valley and in the higher valleys running to the Cham Kotal.

Western Afghanistan: We first observed this lark on July 1, when we shot a female 70 km. north of Shin Dand along the road to Herat. In this bird the gonads had passed the active stage. This was also the case in the birds which we collected on July 6 in the cultivated fields at about 1640 m. in the Ardewan Kotal. On the same day we saw flocks of juvenile birds along a small water-pipe in a very deserted part of the valley at 1300 m. elevation. In the main Hari Rud Valley I only obtained two specimens and they were both juvenile. They were shot in fields at Obeh, July 20, at a place where four days earlier I had collected without finding any larks at all.

At Bamian after our arrival on September 6 I saw a flock of 30-50 individuals every day in some particular fields. At the end of the month their number decreased and on October 5 I saw only five. After that date and until our departure we saw none. In the same place I observed the species during our visit on June 5. Therefore I imagine that the birds observed in the autumn were the breeding population, and that they departed at the end of September or the beginning of October. We noticed no passage migration.

(195). Melanocorypha bimaculata torquata Blyth – Eastern Calandra Lark

Melanocorypha torquata Blyth, Jour. As. Soc. Bengal. 16: 476 (1847 - Afghanistan)

Faizabad, NE Afghanistan

11. vii. 48.
$$3 \times 2$$
 we. 56 wi. (121)

Ardewan Kotal, W Afghanistan

6. vii. 49.
$$\frac{3}{0}$$
 10×5 — 60 — (124)
 $\frac{3}{0}$ 8×4 — 47
 $\frac{3}{0}$ $\frac{1}{2} \times \frac{1}{2}$ — 45 — 117 juv.
 $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ — 44 — 110 juv.

I have not been able to compare the three adult males in badly worn

Lark only at two localities. At Faizabad in Badakhshan I saw a party of half a dozen birds on July 11 in the very dry, harvested fields on the low hills near the town. At an altitude of about 1650 m. in the Ardewan Kotal north of Herat it was rather common in the cultivated areas. In spite of the late season several of the birds were singing. The postnuptial moult had not yet started.

This lark was a very common cage bird in Afghanistan.

(197). Eremophila alpestris albigula (Bonaparte) – Horned Lark

Shibar Kotal, Central Afghanistan, 2. and 7. vi. 49.

Weight 33 7 ad.: 34–39 (37,1); juv.: 31; 9: 32, 39

Wing ♂♂ 7 ad.: 116–123 (119,6); ♀♀: 108, 108

Darra-i-Shahidan, Central Afghanistan, 28. ix. and 6. x. 49.

Weight 13 33: 29-42 (38,9); 99 7 ad.: 34-42 (37,0); 1. winter: 34, 35

Wing 12 33: 116-124 (120,7); 99 7 ad.: 111-116 (112,4); 1. winter: 103, 110

Darra-i-Shahidan, Central Afghanistan

6. vi. 49. 6×4 we. 30 wi. 121

Unaï Kotal, Central Afghanistan

Panjao, Central Afghanistan

14. vi. 49. \circ 1¹/₂×1 - 33 - 109 juv.

Tirpul, W Afghanistan

9. vii. 49.
$$3^{1/2} \times 1/2 = 36 = 108$$
 juv.

The adult autumn specimens are in fresh plumage. In many specimens one or more of the three outer primaries were still growing as were also many feathers of the body and especially of the head.

I have not been able to compare my series with material from the surrounding countries. As the frontal band and throat in the fresh moulted birds are white or in a few individuals with a faint brownish tinge, but not sulphur yellow as in *penicillata*, they must belong to *albigula* as also stated by VAURIE on the material collected by KOELZ in Afghanistan.

On June 2, 1949. I found the Horned Lark rather common between 2900.

As on June 7 at this locality we also collected fletched young, the female mentioned presumably was a repeat-layer or she was going to start a second brood. The well developed gonads in the males speak, I think, for the latter possibility. — When on October 18 we passed again through the Shibar Kotal we saw several small parties in the ploughed fields.

On June 6, 1949, we tried to drive from Bamian to Band-i-Amir but we were forced by a snow storm and a slippery road to turn back at an altitude of about 3200 m. before we reached Cham Kotal. On this trip we saw the first Horned Larks in the cultivated fields of the Shahidan Valley at an altitude of about 2900 m. where adults with fletched young occurred. After the snow storm had set in, it was especially numerous, presumably forced down from the surrounding mountains. On September 28 we succeeded in driving through to Band-i-Amir and saw again the first larks in the Shahidan Valley and from then nearly everywhere in the high-situated valleys as well as on the dry slopes at the passes with very poor vegetation. During visits on October 6 and 13 we found a smaller number at these localities.

In the Unaï Kotal, at an altitude of about 3200 m., we saw only on June 10 two Horned Larks, a female together with a fletched young in which the outer primaries were still growing. The ovary of the adult female was partly destroyed, but a follicle with a diameter of 4 mm. and yellow in colour was visible. This together with an oviduct of nearly maximum size makes it very likely that the female was going to start a second brood. – Besides the juvenile bird collected at Panjao, an adult one was seen on a ridge at an altitude of 3000 m.

The male from Tirpul in the Hari Rud Valley is in juvenile plumage. It has no yellow tint on throat and breast, presumably owing to bleaching. The feets are dark. It was surprising, at this time of the year, to find a Horned Lark down at an altitude of 900 m. in the main valley, where it can only be a straggler.

On the mountain ridges in Nuristan, on our crossing of the Weran Kotal, and in the higher valleys north of the Hindukush main range, I looked in vain for this lark until July 16, 1948, when I saw a single one near the pass between Sanglich and Maghnaol, in the same area in which Koelz had

Dilaram, S Afghanistan

 2×1 we. wi. 113 21. iii. 49. 3

Shin Dand, W Afghanistan

28. vi. 49. $3 \times 5 - 36 - 108$

29. vi. 49. $3 \cdot 10 \times 5 - 38 - 112$

-34 - 101Ω 2

Herat, W Afghanistan

6. vii. 49. $\vec{\sigma}$ $\frac{1}{2} \times \frac{1}{2} = 40 = 105$ juv. $\vec{\sigma}$ = 40 = 105 juv.

2. vii. 49. $Q = 3 \times 1/2 = 33 = 94$ juv.

Bala Murghab, N Afghanistan

 $7 \times 5 - 42 - 106$ 26. vii. 49. ♀

Andkhui, N Afghanistan

29. vii. 49. $9 6 \times 3 - 32 - (100)$

 $9 5 \times 4 - 40 - 105$

Mazar-i-Sharif, N Afghanistan

1. viii. 49. $3 \times 1^{1/2} - 43 - 108$

Faizabad, NE Afghanistan

11. vii. 48. $3 \quad 7 \times 5 \quad -39 \quad -110$

る 6×4 — 40 — 109 る 7×5 — 40 — 110

 $7 \times 5 - 34 - 106$

Kabul, E Afghanistan

30. v. 49. $3 \times 4 = 37 = 108$

♂ 5×4 — 35 — 104

 $7 \times 5 - 32 - 99$

Gardez, E Afghanistan

24. v. 49. $3 \times 6 - 38 - 108$

 $7 \times 5 - 37 - 108$ 3

3 - 32 - 101

laying -41 - 102

Darra-i-Shahidan, Central Afghanistan

13. x. 49. $Q = 4 \times 3 = -39 = -107$

Bamian, Central Afghanistan, 21. ix.-12. x. 49.

Weight 33: 43, 44, 44; \$\partial \text{:} 34, 36, 37, 39

33: 112, 114, 116; \$\text{9}: 103, 104, 105, 106 Wing

of my material and following the opinion of VAURIE (1. c. p. 495) based on very large series, I refer all the Afghan populations to magna (trend "vambery"). A few observations may, however, be worth mentioning. WHISTLER (1945: 288) says that of 4 birds collected by Griffith at Pashat (Pushut) in the Kunar Valley, three would certainly pass as chendoola, the Indian form, which is smaller and darker than magna. As to colour my own specimens from eastern Afghanistan (Kabul and Gardez) are not comparable because of wear, but the wing measurements agree with those of the magna group, not with those of chendoola. VAURIE furthermore refers two adult breeding specimens from Parachinar in the North West Frontier Province to magna, not to chendoola. This may indicate that the Indian form is not represented in Afghanistan. - In the birds on migration, which I collected at Bamian, the wing measurements tend to be larger than in the specimens collected in breeding areas of Afghanistan. This shows perhaps a trend to longer wings in the north of the breeding area of "vambery", probably related to a more pronounced tendency to migrational movements.

In two females from July 20 and 29 and in the male from August 1 the moult of the body feathers has started. The Bamian specimens, collected between September 21 and October 13, had finished the moult except the male from September 24 in which a few of the body feathers were still growing.

The Crested Lark is widely distributed in Afghanistan but avoids the higher, mountainous parts. Although resident in most of its breeding range, it leaves the higher places during severe winter.

Eastern Afghanistan: In the vicinity of Kabul it is a common breeding bird. We saw it at many localities along the road when on June 1, 1949, we drove up to Charikar at the entrance of the Ghorband Valley. The next days, however, we did not see it on our way up the Ghorband, over the Shibar Kotal, through the Darra-i-Shikari to Doab, and back to the Bamian Valley and up the high valleys west of Bamian in the direction of Band-i-Amir. On August 6–7, coming from north, we had the opportunity to check the limits of the distribution. In the Surkh-ab Valley we saw the last

did not see it until south of Mukur when on February 16-17, 1949, we drove from Kabul to Kandahar.

On February 19–20, 1948, I found it rather common in the wide valley along the Kabul River northwest of Jalalabad, and on August 9 I saw it in the lower Kunar Valley. In Nuristan I never observed it, and on the excursion in July over the Weran Kotal in Hindukush to Faizabad in Badakhshan I saw it only around this town.

Southern Afghanistan: On February 18, 1949, we often saw it on the roads and streets of Kandahar, and on the 20th–21st we found it to be the most common bird along the road from Kandahar to Farah. It was most numerous near cultivated fields and avoided completely the really desolated areas. On April 3–6 we found the status rather unchanged between Farah and Girishk. In the beginning of May, however, we saw remarkably few birds, presumably because the birds were occupied with incubation or care of young, for at the end of June it was common again along this road.

The Crested Lark was a characteristic bird of the lower Farah Rud where we found it to be common, especially on the abandoned fields around Bagrabad while it was less numerous on the cultivated area at Faizabad. There were also a few in the more fertile parts of the steppe far from the villages. About the middle of March its number seemed to decrease somewhat. It could not be decided, however, whether it was because of the spread of the birds at the beginning of the breeding season or because a real decrease had taken place. An examination of the gonads revealed that these were slightly enlarged at the beginning of March, at which time the birds were still in small parties. In many males from the end of the month the testes were injected and at, or near, their maximum size. The song was now heard all over the fields. The birds mostly sang on wing. The song maximum was reached in the beginning of April. In the females the maximum size of the gonads was not attained until the beginning of April. A badly damaged female (not skinned) from April 9 was in laying condition. In a female from the 14th the oviduct was at its maximum size and the ovary had two dark yellow follicles with a diameter of 7 and 4 mm., which showed that the hird would have laid on one of the next days. In a female from the 17th

Western Afghanistan: At the end of April we found it a very common bird around Farah, especially along the river and near the cultivated areas. The same was the case at Shin Dand June 28–30, 1949. It was strange at that time of the year not to find a single young bird at this locality; maybe they had gathered in flocks made up of such juvenals which lived in places I did not visit. On our drive, July 1, through desolate foothills farther north to Herat we saw the lark at several places. In the Hari Rud Valley we found it at suitable habitats all the way from Islam Qala at the Iranian border to Obeh east of Herat. Farther east, however, it disappeared and presumably it avoids all the central, mountainous Afghanistan. At Obeh we only saw it in the main valley, not in the foothills or in the side valley. On an excursion of July 6 to the Ardewan Kotal I saw it at several localities but not in the fields in the pass itself. At an altitude of about 1300 m. a party of about 20, exclusively young birds, stayed at a small water-course in a very desolate landscape.

Northern Afghanistan: On July 22 we drove from Herat over the Sauzak Kotal (2500 m.) to Qala Nau. The Crested Lark followed us all the way through the main valley and the lower parts of the side valley, but it disappeared long before we reached the pass, and we did not see it again until we came to Qala Nau. From there it was common at many localities all along our route in northern Afghanistan: Bala Murghab, Maimana, Andkhui, Mazar-i-Sharif, Haibak and over the Danaghori plains to the Surkh-ab Valley where it again disappeared before we reached Doab. Along this route it was also most common in the areas under cultivation and lacking at the most desolate places.

Migration: As emphasized above I never observed the Crested Lark in the higher parts of Afghanistan during the breeding season. In the Bamian area also I did not see it on the excursions in June nor in the beginning of our stay there in the autumn. However, on September 21 and 24 single birds appeared, and three on October 4 and on the 10th two parties of 5 and 12 birds, and then again a few at most every day until our departure on the 18th. Some of the birds were collected even at an altitude of about 2800 m. These observations clearly show that a migration takes place and

My only observation of the Skylark is this juvenile male which I collected at an altitude of about 1650 m. in the corn fields in the Ardewan Kotal. The postjuvenile moult had just started. The only other specimen collected in Afghanistan during the breeding season was taken by Koelz on July 9 at Gandachesma in Badakhshan. Both these localities are at the southern border of the overlapping zone between A. arvensis and A. gulgula.

(200). Alauda gulgula - Little Skylark

- a. Alauda gulgula inconspicua Severtzov
- b. Alauda gulgula lhamarum Meinertzhagen
- a. Gardez, E Afghanistan

24. v. 49.
$$3 \times 4$$
. we. 19 (?) wi. 96 $3 \times 7 \times 7 \times 7 \times 7 \times 94$

Shin Dand, W Afghanistan, 28.-29. vi. 49.

Weight 6 33: 25–27 (26,2); 99: 24, 26, 27 Wing 6 33: 91–99 (95,3); 99: 90, 90, 95

Herat, W Afghanistan

4. vii. 49.
$$3 \times 1^{1/2}$$
 we. 25 wi. 92 juv. 5. vii. 49. $3 \times 5 \times 5 \times 5 \times 10^{1}$

Obeh, W Afghanistan

16. vii. 49.
$$3 1 \times 1/2 -26 -92 juv.$$

20. vii. 49. $3 2 \times 1 -27 -(90) juv.$
 $3 2 \times 1 -25 -89 juv.$
 $2 3 \times 2 -25 -(92)$

Andkhui, W Afghanistan

Bamian, Central Afghanistan, 21. ix.-7. x. 49.

Weight
$$33: 25, 26, 27; 99: 26, 27, 29$$

Wing $33: 96, 96, 99; 99: 88, 92, 94$

b. Tilli, NE Afghanistan

18. vii, 48.
$$3 \times 6 - 29 - 101$$

 $3 \times 11 \times 6 - 30 - 101$
 $3 \times 8 \times 5 - 24 - 99$

The adult birds taken while breeding from Gardez, Shin Dand, Herat,

the light feather fringes are less conspicuous and the central parts of the feathers are nearly black brown, not dark brown. 2) On the under parts the breast region only has a brown tinge. 3) The streaks on the breast are more pronounced. 4) The wing measurements are larger. VAURIE (p. 519) says that "... in northeastern Afghanistan north of the Hindu Kush, the population appears to be a little darker. The difference may be due to the state of the plumage ..." but he continues "... it is possible also that a certain amount of gene flow takes place from the darker *lhamarum* which replaces inconspicua in neighboring Gilgit". He finds, however, that the populations in northeastern Afghanistan are only slightly different from inconspicua, and he refers them to the latter. In this connection it is of interest that IVANOV (1940: 180) because of colour and size differences, refers the populations from the higher parts of Tadjikistan to guttata (= lhamarum) and those from the lowland in western and northern Tadjikistan to inconspicua. Dr. Vaurie has kindly examined the specimens from Tilli which he found very close to *lhamarum* though perhaps slightly paler, the difference, however, being extremely slight.

The specimens freshly moulted from Bamian of cource can only be compared with caution with the birds in worn plumage from the other localities. The dark upper parts is reminiscent to some extent of the birds from Tilli but the faint rufous tint on the upper parts, especially on the flanks, of the Bamian specimens is quite lacking, however, in the birds from Tilli. Dr. Vaurie has also examined these specimens from Bamian and found them to be true *inconspicua* which with wear becomes much paler.

The adult birds from the end of May to the end of July do not show any sign of starting the moult. In the adults and subadults from Bamian the moult is nearly finished. During skinning, however, it was noticed that some of the body feathers in the two females from September 21 were still growing. The outermost primary was also growing, as it was in a male from October 7. In two juvenile birds from July 16 and 20 the postjuvenile moult had started, in two from the 4th and the 20th it had not, and in one from the 29th it was nearly finished but the three outer primaries were still of the immature plumage.

ovaries were in inactive stage. We saw no fledged young. — In the Hari Rud Valley I found it in the same habitats, but it was not numerous and only recorded at Herat and Obeh. — From northwestern Afghanistan I have only a single specimen which was shot in the fields near Andkhui. I tried to find more specimens but without results.

In Nuristan I saw a few occasional larks in the fields of Gusalek in February and March, 1948. I was not sure whether they were Alauda or Calandrella, and I failed to collect any. Later I did not see any skylarks in Nuristan. Having crossed the Hindukush to Badakhshan I found Alauda gulgula in July in cornfields at several localities below 2700 m. in the valleys of Kokcha, Warduj and Sanglich. At Tilli it was rather numerous and sang over all the fields. The song and the large, injected testes in the males may indicate that they were just going to start a new brood. I saw no young from an earlier brood, but one bird had a caterpillar and a crane-fly in its bill so it had presumably nestlings.

The occurrence of the Little Skylark at Bamian was a little curious. From our arrival at the place on September 6 I did not observe it until the 21st when I found about a dozen individuals in a meagre lucerne field at a locality I had not visited before. Later I saw also a few in the main valley. It was seen only on the dates where specimens were collected. Usually this species is not assumed to be migratory and because of the state of moult in the Bamian specimens it is also very unlikely that they were on migration in spite of their somewhat puzzling appearance.

(201). Riparia riparia diluta (Sharpe and Wyatt) – Sand Martin Faizabad, Seistan, 12.–16. iv. 49.

Weight 33: 14, 14, 15; ♀♀: 14, 15

Wing ♂♂: 102, 103, 108; ♀♀: 102, 108

The under parts in these specimens are paler and the breast band more irregular than in Danish breeding birds. As these are the characteristic differences between *diluta* and the nominate form, I refer the series to *diluta*.

On February 20, 1948, I saw some martins which undoubtedly were

where the oviducts were only slightly thickened. – At Farah we recorded a single bird on April 30.

We found it a very scarce breeding bird in the parts of Afghanistan visited because in the months from May to August we made only very few observations. We saw a few at Tirpul in the Hari Rud Valley on July 9, at Bala Murghab on the 24th-25th, and at Chashma-i-Sher on August 5.

The autumn migration was not considerable during the time we spent at Bamian. In the highlying Darra-i-Shahidan I saw a few martins, presumably Sand Martins, on September 28, at Bamian five birds on October 7, and a single bird on the 10th.

(203). Hirundo rupestris Scopoli - Crag Martin

Gusalek, Nuristan

22. iii. 48.
$$3 \times 2 \times 2$$
 we. 19 wi. 128

Stiewe, Nuristan

16. vi. 48.
$$3 \times 5 - 17 - 127$$

Obeh, W Afghanistan

Panjao, Central Afghanistan

13. vi. 49.
$$39 \times 5 - 20 - 133$$

Bamian, Central Afghanistan,

8. ix. 49.
$$3 \times 1 = 18 = 129$$
 juv.
14. ix. 49. $3 \times 1 \times 1/2 = 21 = 130$ juv.
0 = 19 = 129 juv.

In contrast to the other migratory swallows the Crag Martin moults before it leaves the breeding area. In the female from Obeh the postnuptial moult had started with the wing feathers as early as July 15. The juvenals from September 8–14 had not started to moult.

In 1948 I observed the spring migration in the Pech Valley in Nuristan. Here, at Gusalek I saw the first bird on March 15, a few more on the 19th, and several early in the morning of the 22nd hunting over the fields in the bottom of the valley. At 10 a. m. they had all gone. I saw a few again on some of the following days until the 28th, when we moved higher up the

altitudes between 2300 and 1550 m. in the valleys of Kokcha, Warduj and Sanglich.

In 1949 we saw it during the breeding season at several localities at rather high elevations, namely on both sides of Tera Kotal (2800 m.) north of Gardez on May 23; at Ghorband, Shibar Kotal, Darra-i-Shikari, and Bamian June 2–7; and at several localities between Sar-i-Chashma in upper Maidan Valley and Panjao in eastern Hazarajat on June 9–19; at Obeh at elevations between 2000 and 2800 m. on July 11–16; and at Maimana on July 27. The male which I collected at Panjao on June 13 had testes at their maximum size and protruding *vesiculae seminales*. At Maimana I found well over a dozen birds in a rocky canyon southeast of the town. The elevation was about 900 m., the lowest altitude at which it was seen.

During excursions in the Bamian area from September 7 to October 17 I saw a few to half a dozen birds on many days, presumably the breeding population of the area. In the afternoon of October 14, however, I observed for the first time a dozen birds hunting over the hotel where we lived. These may have been on migration as well as a dozen at the outlet of the Ghorband Valley on the 18th.

(205). Hirundo rustica rustica Linné - Common Swallow

Synonym: Hirundo rustica afghanica Koelz, Proc. Biol. Soc. Washington 52: 75 (1939 – Baghlan, Afghanistan)

Lower Farah Rud, Seistan, 1. iii.-16. iv. 49.

Weight 5 ad. 33: 17-21 (18,2); 99: 17, 18, 20

Wing 7 ♂3: 119–125 (122,3); 6 ♀♀: 117-126 (120,3)

Kabul, E Afghanistan, 30. v. 49.

Weight 33: 16, 17, 17, 17; ♀: 16

Wing ♂3: 122, 123, 124, 128; ♀: 120

Herat, W Afghanistan

5. vii. 49. 3×2 we. 22 wi. 122

 $95 \times 3 - 20 - 119$

 $94 \times 3 - 19 - 123$

The abdomen of at least 11 out of 16 specimens from Seistan and Herat contained from a few to numerous nematodes.

HUTTON, SWINHOE and ST. JOHN recorded the first arrivals at Kandahar on January 29 (1881), February 5 (1840), 7 (1879), and 8 (1841). We found it very numerous in the town on February 18. In Girishk, Dilaram and Farah we saw a few on February 20–23. They had, however, increased considerably when we revisited Farah on February 28 and the two other places on April 4. The first juvenals we observed flying were seen in the Tarnak Valley on May 7. When on June 24–27 we again drove from Kabul to Farah this swallow was numerous in all the cultivated areas, and the juvenals were in the majority.

Southern Afghanistan: During the first week of our stay at Bagrabad in Seistan we saw only single birds in the village and its vicinity. About March 5, however, their number increased considerably and they were from now on constantly over and in the village, where they flew unconcernedly down through the smoke holes in the top of the huts to look for nest sites on projecting bricks in the arched roofs. They seemed to be in pairs at the time of their arrival or very shortly after. A male shot on the 14th carried loam in its bill and on the 25th I saw a swallow fly with a feather for its nest. In a male shot on March 1 the testes had not yet attained a quarter of its maximum size; in two from the 14th they were injected and much enlarged; and in all four birds from the 31st they were in maximum stage. One of the females from that date would have laid within a few days. Besides these local birds I saw on March 17 numerous swallows resting in some fields 22 km. south of Salian. A party of half a hundred which we observed at 6.30 p.m. near Farah on May 2 may also have been passage migrants.

Western Afghanistan: We found it in June-July numerous at Shin Dand and in the Hari Rud Valley from Islam Qala in the west to about 60 km. west of Kwaja Chisht. At this last place we saw none. At Obeh it was common in the main valley but only once we saw a few up in the side valley at the hotel.

Northern Afghanistan: It was numerous in most of the cultivated

Eastern Afghanistan: It was a common breeding bird in Ghorband Valley, the Kabul area, Logar Valley, the Gardez area, and all along the road from Kabul to Kandahar. In the Maidan Valley it occurred up to an altitude of about 2600 m. (Sar-i-Chashma) but from there I did not see it at all between Unaï Kotal and Panjao so I assume that, contrary to Delichon urbica, it avoids all the central highland.

On February 19–22, 1948, there were several in the broad valley northwest of Jalalabad and in the Kunar Valley. At Gusalek in the Pech Valley I saw a single one on February 27 and a few on March 15. At 8 a.m. on the 22nd numerous swallows were hunting high in the air over Digal near Gusalek, but they were too far away to be identified with certainty, most likely, however, they were *H. rustica*. After that day I saw only one single Common Swallow in Nuristan during the rest of the spring and summer, namely at Pashki on June 9. It may, therefore, breed in central Nuristan, but it is at any rate very rare there during the breeding season. When we travelled back I saw a few on August 6 in the lower Pech Valley at an altitude of about 800 m. midway between Gusalek and Chigha Sarai, and on the following days in the Kunar Valley.

I did not observe the time at which the Common Swallow leaves Afghanistan but most birds had in any case left Kabul by the beginning of September. In the autumn of 1949 I saw only very few at Bamian: on September 11 a single bird, and on the 12th three. Half a dozen swallows which flew down the valley on the 25th were presumably also of this species.

(206). *Hirundo smithii filifera* Stephens – Wire-tailed Swallow Lashkari-Bazar, S Afghanistan

Kabul, E Afghanistan

Chashma-i-Sher, N Afghanistan

5. vii. 49.
$$\sqrt{3}$$
 (7×5) — 14 — 120

Kachari, Badakhshan

3. vii. 49.
$$3.5 \times 4 - 16 - 123$$

impossible to separate the populations of India, Afghanistan and Turkestan.

The Wire-tailed Swallow is very local but widely distributed in Afghanistan. On May 30, 1949, we saw 2-3 sitting on the telephone wires along the road from Kabul to the Tangighoru canyon and between June 20-23 Madsen saw one in Kabul. In the lower parts of the Ghorband Valley, to above Siah Gird, we observed half a dozen on June 2. - At Lashkari-Bazar in southern Afghanistan it was numerous on May 4-5 and presumably on its breeding ground. They incessantly flew down the underground water canals where, I think, they had their nests. In the female which we collected the oviduct was at its maximum size and the largest follicle measured 2 mm. in diameter. - About 50 km. north of Shin Dand in western Afghanistan we saw a single bird on July 1. - In northern Afghanistan we found some along the Murghab on July 24-25 in the vicinity of Bala Murghab. There, under the arches of a bridge there were 6 nests on one of which a bird was still sitting. The nests were quite inaccessible so I could not inspect the contents of them. We saw also a few birds at Pul-i-Khumri in the Surkhab Valley on August 4 and, the next day, at Chashma-i-Sher. The male collected here had very enlarged vesiculae seminales. - In Badakhshan I only saw the specimen which I collected on July 3. It sat together with a Common Swallow on a twig in a thornhedge near Kachari at an altitude of 2300 m. which was the highest altitude I ever found the species.

(208). Hirundo daurica rufula Temminck – Red-rumped Swallow Bala Murghab, N Afghanistan

24. vii. 49. 3 4×3 we. 19 wi. 119 t. fork 55

Haibak, N Afghanistan

Darra-i-Shikari, Central Afghanistan

4. vi. 49. $3.7 \times 4 - 18 - 120$ 58

According to Vaurie (1951, Am. Mus. Nov. 1529: 35) the birds from Gilgit (terra typica of scullii), eastern Afghanistan, and Baluchistan are not separable from birds from the Mediterranean countries although they

also observed rather many but none on the intervening days. No doubt a wave of migrants passed through the valley in the last third of March. I found some uninhabited nests under projecting rocks in a cleft which certainly belonged to this swallow. When I returned to Gusalek I revisited the place on August 4 but found still no birds at these nests. - On March 29-30 we moved to Wama where EDELBERG on April 5 saw for a short time the valley swarming with the Red-rumped Swallow, while I myself did not see any before the 12th. From then until our departure on May 6 I occasionally saw a few birds. I looked for the nests but found neither old nor new ones. However, it presumably breeds in the vicinity for I saw a few individuals again when I revisited Wama on July 31. - I collected May 8 -June 14 at Pashki during which time I only saw it thrice, on May 17 several were hunting over the valley and on June 4 and 10 I saw three individuals. I therefore presume that about Pashki it is also a scarce breeding bird. - In Badakhshan I found a few at Faizabad on July 11, between this town and Barak on the 12th, and in the Warduj Valley a little above Barak on the 13th.

During the summer of 1949 I saw it in only rather few places. There were some in the Ghorband Valley on June 1, in Darra-i-Shikari on June 4 and August 7, and in the lower parts of Maidan Valley on June 19. In the male collected on June 4 in Darra-i-Shikari the testes were much enlarged and injected. — We recorded it on two localities between Qala Nau and Bala Murghab on July 24; at Andkhui on the 29th where a few were together with *H. rustica*; at Haibak on August 2–3 where a party of about 20 birds was hunting over some loam slopes; at Chasma-i-Sher on the 5th; and at several localities up through the Surkhab Valley on the 6th.

We failed to observe the autumn migration, unless some of the birds in August were already on migration. On September 5 I saw a few in the Ghorband Valley and the following day MADSEN saw a single bird at Bamian. During the rest of our stay there none appeared.

the spring of 1948 the first migrants arrived at Gusalek in Nuristan on March 20, when about two dozen were hunting over the valley. In the morning of the 22nd a new and larger wave of migrants appeared together with *Hirundo daurica* and *H. rupestris*. At 10 a. m. they had all passed. From then on I did not observe any in the Pech-Parun Valley until May 16 when about 20 birds were hunting over our camp at Pashki. Here I saw a few again on the 17th and the 27th, and half a dozen on the 31st. The status of these birds is uncertain, but most likely they bred in this part of Nuristan for on June 19 and 20 I saw half a dozen over Stiewe, and on July 22 a single bird in the valley which extends from Stiewe to the Weran Kotal. – In Badakhshan I saw a few on July 1–5 at some localities in the Kokcha Valley down to an altitude of about 2000 m., on the 14th–16th in the Sanglich Valley, and on the 21st in the Weran Valley.

In central Afghanistan we saw on June 2, 1949, half a dozen near a small village 12 km. west of Shibar Kotal. Here the road runs through a very narrow valley with vertical rock walls in which there were plenty of possibilities for the birds to hide their nests, which we could not find during the short time we stayed. In the male which we collected the testes were at, or very near, the maximum size. In a badly damaged female the oviduct was much enlarged and the ovary contained only rather small follicles and some ochreous areas; she had presumably just passed the laying stage. - We found also a few at Bamian on June 5, and in the Ghorband Valley on the 7th. – On our excursion from Kabul to eastern Hazarajat we did not record it until we had passed the Unai Kotal and crossed the Helmand river, then we saw on June 11 a few at 3-4 localities on our way to Panjao, where we also observed some between June 12 and 16. In western Hazarajat we only recorded a single bird between Kwaja Chisht and Obeh on July 20. - In northern Afghanistan we saw 3-4 individuals on July 24 in the canyon between Qala Nau and Bala Murghab where also Apus affinis occurred.

The early spring migration of 1949 we observed in southern Afghanistan, but only few birds passed during the time we spent there. We saw on February 18 two in Kandahar, on the 22nd a few in Farah, on March 17 two and one 25 and 50 km. south of Salian, on the 28th two over Faizabad,

a. Bamian, 6. ix.-11. x. 49.

Weight 33 8 subad.: 20–25 (23,4); 99 ad.: 19, $23^{1}/_{2}$; subad.: $19^{1}/_{2}$, 20, 21 Wing 33 8 subad.: 88–92 (90,0); 99 ad.: 84, 86; subad.: 80, 83, 83 Tail 33 8 subad.: 67–73 (69,1); 99 ad.: 64, 66; subad.: 61, 62, 62

b. Faizabad, Badakhshan

Faizabad, Seistan

22. iii. 49.
$$3 \times 3 \times 3 \times 93 \times 93 \times 966$$

Bamian, Central Afghanistan

6. ix. 49.
$$3 \times 1 - 22 - 88 - 68$$

8. ix. 49.
$$3 \times 1 \times 1 = 25 = 95 = 74$$

The specimens in series (a) are migrants in fresh plumage. They are not separable from European birds in the same stage of plumage. All the males, and two unsexed birds, which are not included in the list, are birds of the year with several juvenal wing-coverts. Two of the five females are adults, three subadults.

The four birds in series (b) differ strikingly from the other specimens by their much more grey upper parts; they belong undoubtedly to griseus which is the breeding bird in eastern Iran, Afghanistan and Turkestan.

The Tawny Pipit is a scarce breeding bird in Afghanistan. I collected on July 11, 1948, an adult female at Faizabad in Badakhshan, and two Anthus sp. which I saw on the 7th between Iskan and Jurm in the Kokcha Valley presumably belonged to this species. It most likely breeds at Bamian for the male collected there on September 6 was moulting the primaries (the 2nd to 5th outer were old, the rest new, growing), and was therefore, undoubtedly, still on its breeding grounds. The bird collected in Seistan may have been a migrant. Only this and a second one were seen there.

When we arrived at Bamian on September 6, 1949, some migration was going on, and it continued throughout the month, but rather few birds rested in the valley, for I never saw more than half a dozen on a single excursion and on several days none. The last was seen on October 11.

(212) Anthus similis decantus Meinertzhagen - Brown Rock Pinit

these localities, and he could not separate them from Baluch specimens (decaptus). MEINERTZHAGEN (1938: 520) on May 31 collected a male near Jalalabad which he identified as jerdoni. This subspecies inhabits western Himalaya, east to Sikkim.

(213). Anthus trivialis - Tree Pipit

- a. Anthus trivialis sibiricus Sushkin
- b. Anthus trivialis schlüteri Kleinschmidt
- a. Bamian, Central Afghanistan, 6. ix.-11. x. 49.

Weight 10 ♂♂: 20–25 (23,4); 7 ♀♀: 17–21 (19,9) Wing 10 ♂♂: 87–92 (88,6); 7 ♀♀: 83–87 (83,9)

Culmen from nares $10 \ 33: 8,5-9 \ (8,9); 7 \ 99: 8-9 \ (8,4)$

Wama, Nuristan

9. iv. 48.
$$\stackrel{?}{\circ}$$
 2×2 we. 22 wi. 84
12. iv. 48. $\stackrel{?}{\circ}$ — 20 — 84
18. iv. 48. $\stackrel{?}{\circ}$ 4×2 — 19 — 86

1. v. 48.
$$96 \times 3 - 22 - 85$$

$$96 \times 3 - 20 - 82$$

Pashki, Nuristan

b. Bamian, Central Afghanistan

3. x. 49. o
$$-18 - 83$$
 cn. $8^{1}/_{2}$
6. x. 49. $\sqrt[3]{1 \times 1/_{2}} - 21 - 88 - 8$
 $\sqrt{2} - 25 - 87 - 8^{1}/_{2}$
10. x. 49. $\sqrt{2} 3 \times 1^{1}/_{2} - 23 - 86 - 8$

14. x. 49.
$$9 \times 3 \times 2^{1}/_{2} = 23 = 85 = 9$$

Panjao, Central Afghanistan

10. vi. 49.
$$96 \times 4 - 24 - 83 - 9^{1/2}$$

The specimens in series (a) differ distinctly from Danish birds in the same stage of plumage by more grey, not so olive, edges to the feathers of the upper parts; by narrower and less pronounced streaks on the upper parts; and by a lighter brownish tinge of breast and flanks. In these respects the Afghan migrants fully agree with a large series of birds from western Siberia in Johansen's collection. I think, therefore, that sibiricus

Brehm, 1856, a synonym of nominate *trivialis*. An available name for these southern populations is *schlüteri* Kleinschmidt, Falco 16: 16 (1920 – Naryn, Tian Shan). Cf. Vaurie, 1954, Am. Mus. Nov. 1672: 10. My specimens in series (b) might of course be presumed to be extreme variants of the greyish *sibiricus*. The description given above, however, does not confirm this, and it must be emphazised that all these grey specimens were collected in October, whereas 17 specimens of *sibiricus* were taken in September. This fact agrees with the common rule that the southern populations are later migrants than are the northern.

The female collected on June 10 at Panjao in Hazarajat agrees best with my series of schlüteri, but it is a little darker above, and the bill seems to be a little longer and broader at the base. Since these characters remind of the description of haringtoni (type locality Hazara) I asked Dr. Vaurie to compare it with the material in the American Museum. He kindly informed me that no topotypical or any material of haringtoni is available, but that my specimen does not appear to be separable from Russian Turkestan schlüteri. The status of haringtoni in Afghanistan is uncertain. Meinertzhagen (1938: 520) on April 11 collected a female at Kabul and Whistler (1945: 284) refers one of Griffith's specimens to this subspecies. It was presumably collected on February 25 at Pashat in the Kunar Valley.

The only Tree Pipit I ever saw in Afghanistan during the breeding season was the female from Panjao. It was collected in a willow scrub. The ovary contained merely small follicles, the oviduct was somewhat enlarged and injected, however far from the maximum size. It might very well have bred.

In the spring of 1948 some migration took place through the Pech-Parun Valley in Nuristan, where on several days between April 9 and May 1 I saw single birds or small parties of half a dozen birds in the vicinity of Wama. At Pashki (May 8–June 14) I made no observations except of the female from May 12 which presumably was a late migrant.

When, on September 6, 1949, we arrived at Bamian a heavy migration of Tree Pipits was going on for we found resting birds all over, both in the main valley as well as in all the visited side valleys, at least up to an altitude of 3000 m. A few days later their number had decreased considerably

(218). Motacilla flava - Yellow Wagtail

- a. Motacilla flava melanogrisea (Homeyer) Black-headed Wagtail
- b. Motacilla flava beema Sykes Blue-headed Wagtail
- c. Motacilla flava thunbergi Billberg Grey-headed Wagtail
- a. Estuary of Farah Rud, Seistan

28. iii. 49.
$$3 \times 4 \times 2$$
 we. 16 wi. 80

Herat, W Afghanistan

2. vii. 49.
$$3.7 \times 5 - 17 - 80$$

5. vii. 49.
$$3.7 \times 5 - 17 - 80$$

Chashma-i-Sher, Danaghori Plains, N Afghanistan

5. viii. 49.
$$3 \times 1^{1}/_{2} - 18 - \frac{1}{2}$$

3 ? $- 18 - 82$

b. Faizabad, Seistan

8. iv. 49.
$$9. 9. 6 \times 3. -19. -77. tl. 67$$

Bamian, Central Afghanistan, 6.-27. ix. 49.

Weight
$$33.6$$
 ad.: 16-18 (16,8); 5 juv.: 16-19 (17,4); sex ?: 16, 16; 99.12 juv.: $14^{1}/_{2}$ -18 (16,0)

Tail
$$335$$
 ad.: 64–71 (68,0); 5 juv.: 64–72 (69,0); sex ?: 67; 9912 juv.: 59–70 (66,7)

c. Bamian, Central Afghanistan

23. ix. 49.
$$3 \cdot 1^{1}/_{9} \times 1$$
 we. 18 wi. 84 tl. 72

The black-headed series (a) consists of four breeding birds in badly worn plumage and a migrant. None of these specimens has a supercilium. In one of the specimens from Herat the chin is white while it is yellow in the other four. The postnuptial moult has started in the two specimens collected on August 5. As this sample is very small and in a bad feather condition, and I have had very little material for comparison, I refer it to melanogrisea which is the name usually used for the population of Afghanistan. As to the validity of this subspecies see Vaurie 1957, Am. Mus. Nov. 1832: 5.

The birds in series (b) were all migrants. The six adult males collected in September at Bamian have light ear coverts and compare very well with specimens of *beema* from its breeding range in western Siberia. Together with these adult males I collected several birds in varying stages of juvenal

along the Hari Rud at Herat and on August 5 there were several in swampy areas at Chashma-i-Sher, Danaghori Plains.

During our stay in southwestern Afghanistan the spring migration was very weak. The first black-headed was observed on March 11 at Baqrabad, the next two on the 17th, and two again on the 28th in the estuary of Farah Rud. On April 4–6 single black-headed were observed at Girishk, Dilaram and Farah, and on the 12th two at Faizabad. The first party of not-black-headed was seen on April 7 south of Farah, a few again the next day, and a single on the 16th.

On March 27, 1948, I saw a few yellow wagtails along the Pech river at Gusalek, Nuristan. These were probably *M. flava*, and they were the only ones recorded during all the spring in Nuristan.

When we arrived at Bamian on September 6, 1949, the migration of *M. flava beema* was going on, and until the last week of the month flocks of up to 100–200 birds occurred in the fields. After that time they decreased, and on October 3 the last ones were seen. *M. flava beema* was one of the most numerous migrants observed at Bamian.

(219). Motacilla citreola calcarata (Hodgson) – Yellow-headed Wagtail

Miyan Deh, Badakhshan

1. vii. 48.
$$3 \times 6$$
 we. 19 wi. 82 tl. 72

Tilli, Badakhshan

18. vii. 48.
$$3$$
 8×6 — 15 — 80 — 68
 2 — 18 — 78 — 66

Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$3 \quad 10 \times 7 \quad -19 \quad -87 \quad -77$$

 $3 \quad 8 \times 6 \quad -18 \quad -83 \quad -75$

Panjao, Central Afghanistan

13. vi. 49.
$$3 \cdot 10 \times 5 - 18 - 84 - 76$$

14. vi. 49. $9 \cdot 10 \times 5 - 23 - 81 - 70$

Herat, W Afghanistan

5. vii. 49.
$$3 - 6 \times 4 - 18 - 83 - (70)$$

black feathers. In nominate citreola Johansen (1944, Jour. f. Orn. 92: 162) found a similar great variation in the colour of the upper parts.

The specimens collected during the autumn migration at Bamian all seem to be juvenals or subadults. I am not able to determine to which subspecies they belong. WHISTLER (1945: 284) refers the examined migrants to werae, while MEINERTZHAGEN refers his three males from the spring migration to nominate citreola.

During July 1948 I found the Yellow-headed Wagtail in several localities between elevations of 2500 and 3500 m. in the Weran, Kokcha and Sanglich valleys in Badakhshan.

On June 2 and 3, 1949, I saw a few in Darra-i-Shikari and at Doab. On the 6th one was seen at an elevation of about 3100 m. in one of the high situated dry valleys west of Bamian. It breeds also in the eastern Hazarajat, where in the middle of June I found a few between the Helmand River and Panjao, and in western Afghanistan where I saw some on June 28–30 around Shin Dand, and on July 2–5 at Herat.

It lived in the rather dry, grass-clad areas along the rivers or in fields around the villages. Males collected during the first half of June had injected testes at their maximum size and much enlarged vesiculae seminales. A female from June 14 was laying. Fledged young were observed from the last days of June and in July.

The only observation of spring migration is of three birds on May 9, 1949, on a small island in Ab-i-Istada, eastern Afghanistan. During the autumn of the same year a few were seen and collected between September 7 and 19 at Bamian.

(220). Motacilla cinerea cinerea Tunstall – Grey Wagtail Gusalek, Nuristan

22. iii. 48.
$$\sqrt[3]{3} \times 2$$
 we. 16 wi. 80 tl. 88

Wama, Nuristan

9, iv. 48,
$$3.7 \times 5 - 14 - 82 - 95$$

Panjao, Central Afghanistan

11. vi. 49.
$$3 \quad 7 \times 4$$
 we.16 wi. 84 tl. 87
16. vi. 49. $9 \quad 7 \times 4 \quad -15 \quad -82 \quad -83$
 $9 \quad 2 \times \frac{1}{2} \quad -15 \quad --- \quad --- \quad \text{juv.}$

According to Vaurie (1957, Am. Mus. Nov. 1832: 10) the overlap between tail measurements of nominate cinerea (England) and those of topotypical caspica (northern Iran) is virtually complete; even the birds of Transbaicalia (melanope) overlap too much to be separated from cinerea. The clinal decrease from west to east in the length of the tail is, however, rather pronounced in the series above, for Vaurie gives a tail length of 92–102 in 19 males from England compared with 83–95 in my six Afghan males.

During the breeding season I found it in eastern, northeastern, central and western Afghanistan. On March 12, 1948, I saw the first Grey Wagtail at Gusalek, Nuristan, where a few single birds and pairs occurred during the rest of the month. Their status was uncertain, but they undoubtedly bred there for a few were seen when in the first week of August we again camped in this place. From April to June I found a few single birds and pairs higher up in the Pech-Parun Valley at Wama, Pashki and Stiewe (2600 m.). They occurred both along the main river and the small streams in the side valleys up to an elevation of 3500–3600 m. – On the northern side of the Hindukush I saw it once only, namely on July 15, 1948, at Sanglich (3000 m.), just north of the main mountain range. – On May 25, 1949, I saw one north of the Saroti Kotal in the province of Gardez.

It was recorded in central Afghanistan on June 2 in the valley west of Shibar Kotal and in Darra-i-Shikari, and in the middle of the month in some localities between Unaï Kotal and Panjao; in western Afghanistan in the middle of July at Obeh and Kwaja Chisht in the Hari Rud Valley east of Herat.

In a male collected on April 9 the testes were near their maximum size, but in all four females collected in Nuristan between March 16 and May 14 the sex organs were very small. The breeding season must, however, start in May, for on June 16 I collected a fledged female. At the same time an adult

(221). Motacilla alba - White Wagtail

- a. Motacilla alba personata Gould
- b. Motacilla alba dukhunensis Sykes
- a. Chigha Sarai, Nuristan

Gusalek, Nuristan

12. iii. 48.
$$3 \times 2 - 24 - 95 - 94$$

7. iii. 48.
$$\bigcirc$$
 7×4 — 23 — 86 — 90

Pashki, Nuristan

14. v. 48.
$$3 \quad 9 \times 6 \quad -24 \quad -93 \quad -92$$

22. v. 48.
$$3 \cdot 10 \times 8 - 24 - 93 - 93$$

25. v. 48.
$$3 10 \times 6 - 24 - 94 - 91$$

1. vi. 48.
$$3 \cdot 10 \times 7 - 25 - 93 - 93$$

25. v. 48.
$$Q$$
 laying $-23 - 89 - 90$

Stiewe, Nuristan

19. vi. 48.
$$3 \quad 9 \times 6 \quad -23 \quad -92 \quad -89$$

23. vi. 48.
$$\circ$$
 laying — 24 — 87 — 84

$$\bigcirc$$
 laying — 23 — 87 — 85

Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$3 \quad 12 \times 8 \quad -24 \quad -95 \quad -91$$

$$3 \quad 10 \times 8 \quad -26 \quad -96 \quad -100$$

$$9 \text{ laying } -24 -91 -87$$

Bamian, Central Afghanistan

16. ix. 49.
$$3 \times 2 \times 2 = 28 = 96 = 92$$

21. ix. 49.
$$3 \times 1^{1/2} - 29 - 95 - 95$$

6. ix. 49.
$$9 \times 3 \times 2 = 25 = 88 = 83$$
 subadult

14. ix. 49.
$$Q = 2 \times 1^{1/2} - 26 - 89 - 85$$
 subadult

Panjao, Central Afghanistan

12. vi. 49.
$$\stackrel{?}{\circ}$$
 10×10 — 25 — 96 — 92

$$3 \quad 9 \times 7 \quad -23 \quad -95 \quad -88$$

13. vi. 49.
$$3 \quad 9 \times 5 \quad -26 \quad -93 \quad -92$$

15. vi. 49.
$$3$$
 $7 \times 5 = 25 = 93 = 96$

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b. Lower Farah Rud, Seistan, 9. iii.-16. iv. 49

Weight 4 $\frac{1}{3}\cdots: 23-27 (24,5); 4 $\pi\pi: 19-25 (22,1)$

Wing 6 $\frac{1}{3}\cdots: 87-91 (89,3); 4 $\pi\pi: 85-87 (86,0)$

Tail 6 $\frac{1}{3}\cdots: 82-87 (85,3); 4 $\pi\pi: 81-85 (83,8)$

Bamian, Central Afghanistan, 17. ix.-7. x. 49.

Weight $\frac{1}{3}\cdots 6 \text{ ad.: } 19-25,5 (22,3); 10 \text{ subad.: } 20,5-24 (22,1); $\frac{1}{3}\cdots \text{ ad.: } 20, 23; 4 \text{ subad.: } 20-22 (20,5)$

Wing $\frac{1}{3}\cdots 6 \text{ ad.: } 90-96 (91,7); 10 \text{ subad.: } 86-93 (89,4); $\pi\pi \text{ ad.: } 87, 89; 5 \text{ subad.: } 84-88 (85,6)$

Tail $\frac{1}{3}\cdots 6 \text{ ad.: } 82-93 (86,8); 10 \text{ subad.: } 82-94 (87,1); $\pi\pi \text{ ad.: } 85, 88; 4 \text{ subad.: } 80-85 (82,8)$
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The specimens of series (a) are all typical personata, except the two males collected in Nuristan on March 12 and May 25. In these the black colour of the upper parts extends further caudally, including a great part of the back, and the grey colour of the remaining upper parts is much darker grey than in other specimens of personata. On March 11 and 27 I observed individuals, one on each occasion, which were very dark on the upper parts, in one case perhaps as dark as alboides. Unfortunately, they were both taken by the river. There can be no doubt that these two specimens represent intermediates between personata and alboides. These last mentioned subspecies breed from Kashmir through Tibet to Yunnan and northern Tonkin. Both personata and alboides seem to have been collected during the breeding season in Gilgit, just at the east border of Nuristan, but nothing is known about an interbreeding in this range (PALUDAN 1932, Jour. f. Orn. 80: 409, map p. 393). All the specimens collected between the end of February and the beginning of May are in the nuptial plumage, but in a male and a female from March 12 some head feathers are still growing. In those from the beginning of July the plumage is very badly worn.

The spring migrants of series (b) collected at the lower Farah Rud in Seistan, are typical dukhunensis with much paler grey upper parts than in nominate alba. In all of them, except one, there is also more white on the greater and median wing coverts than in alba.

The Masked Wagtail (personata) is widely distributed as a breeding bird in Afghanistan. On February 19–22 I saw several along the Kabul River

this lower part of the valley to breed for when we returned to Gusalek in the first week of August we saw some adults and young. — During the first half of April I observed a few at Wama, our next camp up the Pech Valley, but from then until we left on May 5 not a single one was seen. It is possible, therefore, that it does not breed in this part of Nuristan with its very narrow valleys. Higher up, where the main valley again broadens, it was rather numerous at Pashki and, especially, at Stiewe (2600 m.).

Outside Nuristan I found it during the breeding season in Badakhshan at several localities below 3500 m. in the Weran, Kokcha, Warduj, and Sanglich valleys during July, 1948; in central Afghanistan in the Ghorband Valley and Darra-i-Shikari during the first week of June, 1949, and between Farakulum and Panjao in the middle of the month; in eastern Afghanistan at Usman Khel east of Gardez on May 25, and at Sar-i-Chashma in the Maidan Valley in June; in western Afghanistan at Shin Dand and in the Hari Rud Valley from Tirpul in the west to Kwaja Chisht in the east between the end of June and the middle of July, 1949; and finally in northern Afghanistan at Qala Nau, Maimana, Tashkurghan, Haibak, and in the Surkab Valley between Pul-i-Khumri and Doab during the last week of July and the first week of August, 1949.

It is supposed to be only a winter visitor and passage migrant in southern Afghanistan. As late as on May 6 and 7, 1949, however, I saw single birds at Girishk which seem to be a little late for migrants. It was observed there also on April 4.

To judge from the birds collected, the breeding season starts in May. In both males and females collected in February and March the sex organs were small. In the males collected from the middle of May to the middle of June the gonads were at their maximum size, and the *vesiculae seminales* were much enlarged. All five females collected between May 25 and June 29 were in laying condition. Young were not observed before the first week of July (1948 and 1949).

Only few migrants of *personata* were observed in southern and south-western parts of the country: On February 21 and 22, 1949, single birds at Dilaram and Farah; on the 27th one at Baqrabad, Lower Farah Rud, the

population. After the middle of September the migration of dukhunensis began, and it was no longer possible to follow the population of personata. The last specimen was collected on the 21st, all the later specimens were dukhunensis.

The subspecies dukhunensis is a passage migrant and, in the southern parts of the country, a winter visitor. All the migrants which in the spring of 1948 passed up through the Pech Valley in Nuristan were personata. On March 22, however, I saw in a party of a dozen personata one individual in which the sides of the head and neck were white. It may have been a dukhunensis, or it may also have been a personata with a delayed prenuptial moult.

A slight spring migration of dukhunensis was observed in 1949 at the Lower Farah Rud in Seistan. The first few, which may have been of this subspecies, appeared on March 3, the next (identified) were seen on the 9th, and from then on a few were observed on most days during the rest of the month. In April single birds were seen on the 8th and 16th.

In the autumn of 1949 the first few *dukhunensis* were observed at Bamian on September 17 and the following days. On the 21st, just after sunset, I observed a very restless flock which counted at least one hundred individuals. On September 30 and on October 7 large flocks of 100 and more than 200 individuals were again observed. The intervening days and during the rest of our stay until October 15th smaller parties were seen in the fields on several occasions.

(222). Pericrocotus brevirostris brevirostris (Vigors) – Short-billed Minivet

Wama, Nuristan

4. iv. 48.
$$3$$
 8×4 we. 18 wi. 94 tl. 109 9 6×4 -17 -91 -109 3. v. 48. 9 3 -17 -92 -106

Pashki, Nuristan

23. v. 48.
$$3 ext{12} \times 6 ext{--17} ext{--93} ext{--107}$$

Gusalek. The first few birds were observed on April 3 at Wama after which date pairs and small parties were seen on several occasions.

The testes were already rather large in the birds collected in the beginning of April. The maximum size $(10\times6$ and $12\times6)$, however, was reached by two males from May 17th and 23rd. The female from May 3 seemed to stay before the laying period, that from the 26th to have passed it.

(224). Pycnonotus leucotis leucotis (Gould) - White-eared Bulbul

Synonym: Molpastes leucotis farahensis Koelz, Proc. Biol. Soc. Washington 52: 64 (1939 – Farah, SW Afghanistan).

Farah, SW Afghanistan

The type and paratypes of *farahensis* were in very fresh plumage. My specimens collected in the type locality in the spring do not differ from specimens of *leucotis* in similar plumage, and they seem not to have a longer tail for two males of *leucotis* have a tail of 76 and 81, and an unsexed 80, while five males collected by SARUDNY in Iranian Baluchistan measure: 71, 75, 78, 78, and 80.

The White-eared Bulbul is a resident in southern Afghanistan where on February 18, 1949, I saw a single one in Kandahar, and a few days later some at Farah where it was seen several times later in the month as well as in April and June. In the first week of July Madsen saw it twice in the hotel garden at Herat.

(225). Pycnonotus leucogenys (Gray) - White-cheeked Bulbul

Synonym: Molpastes leucogenys picru Koelz, Contrib. Inst. Reg. Explor. 1: 11 (1954 – Laghman, E Afghanistan)

Wama, Nuristan

12. iv. 48. 3×2 we. 31 wi. 95 tl. 86

somewhat in size as its populations range farther west, but the geographical variation is clinal and slight, and there are no differences in colouration. Vaurie, therefore, thinks it best not to recognize any subspecies.

The form "humii" has been much discussed. VAURIE has recently stated (1. c.) that he considers it to be a constant form of leucotis though he warned that he had seen only one specimen. Mr. R. W. Sims in the British Museum has had the kindness to lend me four specimens of humii, namely two males from Bannu and two females from Kohat in the NWF-Provinces. The specimens show varying degrees of intergradation between leucotis and leucogenys; two come nearest to leucotis, two to leucogenys. Therefore, I think, "humii" must be considered to represent intermediate specimens between leucotis and leucogenys, and not a true geographical subspecies. The two specimens from Bannu were collected by Magrath who, on the label of the leucotis-like male has written: "Feeding in cabbage patch among M. leucotis. Mistook it for M. Humii' (February 2), and on that of the leucogenys-like male: "Consorts with M. leucotis and is difficult to distinguish from same. Habit precisely similar" (November 20). On the label of the leucotis-like female from Kohat WHITEHEAD has written: "Shot whilst building nest" (April 5). In spite of the intermediates it may be most convenient to consider the two forms as separate species owing to the considerable morphological differences.

Through the kindness of Colonel Meinertzhagen I have had the opportunity to examine the male of "humii" which he collected on May 31 at Jalalabad (Ibis 1938: 675). Its plumage is much worn, but there can be no doubt that it is very close to, if not identical with true leucogenys. The feathers of the crown are greatly elongated, narrow, and brown, and there is a distinct white superciliary streak. My only obstacle to call it a typical leucogenys is a comparatively short bill, which, however, may be owing to individual variation.

We saw a few single birds or pairs of the White-cheeked Bulbul on April 4, 8, and 12, 1948, at Wama in the Pech Valley, Nuristan. We did not leave Wama until May 6, but no further observations were made there or anywhere else in Nuristan, so the birds seen may at any rate have been mi-

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Farah, SW Afghanistan
         30. iv. 49. ♀
                          6 \times 4 we. 25 wi. 92 tl. 73
   Tirpul, W Afghanistan
                          1 \times 1/2 - 26 - 96 - 82 \text{ juv.}
          9. vii. 49. 3
   Obeh, W Afghanistan
         11. vii. 49. 3
                          3\times 2 - 29 - 91 - 81
         15. vii. 49. 3 \times 1 \times 1 = 29 = 94 = 80
                          5 \times 3 - 28 - 92 - 79
         13. vii. 49.
                     2
                                 -28 -93 -78 \text{ juv.}
                                 -29 - 91 - -iuv.
                     0
  Panjao, Central Afghanistan
         14. vi. 49. \vec{a} 10×5 - 29 - 91 - 81
   Kachari, Badakhshan
                                 -25 -93 -78
          3. vii. 48. ♀
  Bamian, Central Afghanistan
        23. ix. 49. \sqrt{3} 1 \times 1/2 - 28 - 94 - 84 subad.
        12. ix. 49. ♀
                         3 \times 3 - 27 - 93 - 76
  Darra-i-Shikari, Central Afghanistan
         16. ix. 49. \sqrt{3} 1 \times \frac{1}{2} - 28 - 97 - 78 subad.
b. Baqrabad and Faizabad, Seistan, 28. ii.-29. iii. 49
        Weight ♂♂: 28, 31, 33; ♀♀: 29, 32
        Wing
                  9 33: 89-94 (91,0); $\partial \text{2}: 86, 90, 93, 95
                  9 33: 76-84 (79,2); $\partial \text{$\gamma$}: 70, 77, 80, 81
        Tail
  Gusalek, Nuristan
        26. iii. 48. \bigcirc 6×3 we. 27 wi. 88 tl. 77
  Bamian, Central Afghanistan, 14. ix.-14. x. 49.
        Weight 6 subadults: 22-28 (25,0)
                  6 subadults: 85-92 (88,8)
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All adults and juvenals collected in July were moulting.

6 subadults: 71-77 (73,8)

Wing

Tail

The representatives of the Red-backed Shrike, which I collected in Afghanistan, are easily divided into two groups: a (phoenicuroides) and b (isabellina). The specimens of the latter group have no colour contrast between crown and mantle, their upper parts are paler and more greyish, and their under parts, especially the flanks, have a pronounced brown tone. In one male of this group, collected on the first of March, the lores are black

scrub at Tirpul. In the middle of July it was rather numerous up to an elevation of 2400 m. in the side valley at Obeh, and many young were seen here. At Kwaja Chisht a single bird observed on the 19th. – In central Afghanistan I saw, on June 14, two individuals in a willow scrub along the river at Panjao. The male collected had testes near their maximum size and slightly enlarged *vesiculae seminales* – In Badakhshan I found it only at Kachari (2300 m.) in the Kokcha Valley where the female collected on July 3 had nearly fledged young.

During all the spring and summer of 1948 in Nuristan I saw only a single L. collurio, namely a migrating isabellina on March 26 at Gusalek in the Pech-Parun Valley.

When we arrived at the Lower Farah Rud in Seistan at the end of February 1949 we found a few *isabellina* in the sparse scrub around the fields and along the river. About the middle of March their number decreased, and after the 29th none was seen. On April 12 we collected a *phoenicuroides*, the only one identified with certainty in this region.

In the autumn of 1949 at Bamian we saw a few or single *L. collurio* on many days between September 6 and October 14, but we never observed any concentration of migrants. As to the occurrence of the two subspecies I have only the information obtained from the specimens in the list. All the birds collected were subadults.

(227). Lanius vittatus nargianus Vaurie – Bay-backed Shrike Ghorband Valley, Central Afghanistan

1. vi. 49. 3×4 we. 26 wi. 90 tl. 89

Because of its paler, brighter, not very deep chestnut mantle, Dr. VAURIE recently (1954, Am. Mus. Nov. 1752: 10) separated the populations of Persian Baluchistan (type locality), Transcaspia and Afghanistan under the name of *nargianus* from that of India.

I found the Bay-backed Shrike only in the Ghorband Valley where on June 1 I saw the specimen collected and a further shrike which presumably also belonged to this species.

(229). Lanius schach erythronotus (Vigors) – Rufous-backed Shrike Farah, SW Afghanistan

27. iv. 49.
$$3$$
 6×5 we. 38 wi. 92 tl. 103

1. v. 49. 2 7×4 — 33 — 89 — 101

Herat, W Afghanistan

5. vii. 49. 2 8×3 — 41 — 91 — 105

East of Kabul, E Afghanistan

30. v. 49. 3 10×5 — 37 — 95 — 112

Gusalek, Nuristan

5. viii. 49. 3 3×2 — — 94 — (106)

Pashki, Nuristan

12. v. 48. 3 8×5 — 41 — 94 — —

13. v. 48. 2 7×4 — 36 — 94 — 111

23. ix. 49. $\sqrt{3}$ $1^{1/2} \times 1$ - 33 - 95 - 112

15. x. 49. $3 1^{1}/2 \times 1 -39 -93 -103$

12. x. 49. $3 \frac{1^{1}}{2} \times 1 - 40 - 96 - 110$ juv.

Bamian, Central Afghanistan

18. ix. 49. ♀

30. ix. 49. ♀

In the specimens from the spring and summer there is some variation in the intensity of the rufous colour above, especially in the two birds from Pashki it is dark and of less extension. These differences seem, however, to be individual and not geographical.

-36 - 89 - 98 -33 - 90 - 103

Western Afghanistan: The Rufous-backed Shrike is not restricted to eastern Afghanistan for on July 5, 1949, I collected a female at Herat, where I had seen another one a few days earlier. It lived there in the open willow scrub. — In southwestern Afghanistan I saw a few on April 28 in the hotel garden at Farah. Although they were singing, they may have been migrants.

Eastern Afghanistan: In May and June I saw it at several localities from west of Kandahar to Kabul. On May 7 there was one in a wadi with a few small bushes 50 km. west of Kandahar, on the 8th several around Mukur, and on the 10th more at Ghazni and farther over Wardak to Kabul.

At these two localities it was seen again on August 6 and 7. Down the Surkhab Valley it occurred at Pul-i-Khumri on August 6.

Nuristan: It breeds in the lower valleys of this province. When on March 31, 1948, we left Gusalek in the middle Pech Valley it had still not arrived, but when we returned I found it in the first week of August at several localities from Gusalek down to Chigha Sarai. Higher up the valley I did not observe it at Wama in April, but at Pashki (May 5 to June 14) I saw three individuals on May 12, 13, and 14. As I saw these three birds on three successive days only, I think they were migrants in spite of the late date. In the male collected the testes were rather large, in the female the sex organs were only slightly developed. It may, however, be a scarce breeding bird in the higher parts of the valley for on June 15 I saw a single singing bird between Pashki and Stiewe.

Badakhshan: I found it July 11–12 at several localities in the broad part of the Kokcha Valley between Faizabad and Barak. In the higher parts of the valley I saw only on July 4 a single one between Kachari and Parwara (ca. 2250 m.).

During the autumn observations at Bamian I saw single birds on several days between September 6 and October 15, namely on September 6, 7, 9, 18, 23, and 30, and on October 1 (two individuals), 12, and 15. They were probably migrants. The five specimens collected there were all birds of the year.

(230). Lanius minor turanicus Fediuschin – Lesser Grey Shrike Obeh, W Afghanistan

13. vii. 49.
$$3 \times 2$$
 we. 48 wi. 119 tl. 91

17. vii. 49.
$$3 \times 1 - 39 - 113 - 83$$
 juv.

16. vii. 49.
$$96 \times 3 - 46 - 115 - 84$$

Bala Murghab, NW Afghanistan

25. vii. 49.
$$9.5 \times 3 - 46 - 117 - 86$$
 juv.

Pul-i-Khumri, N Afghanistan

6. viii. 49.
$$^{\circ}$$
 — 42 — 116 — 86 juv.

The adults as well as the juvenals in this series were moulting.

VAURIE recently (1955, Am. Mus. Nov. 1752: 14) recognized the sub-

Bala Murghab, and two on August 6 a few kilometres south of Pul-i-Khumri in the Surkhab Valley.

On the Lower Farah Rud in Seistan I saw single grey shrikes on March 26 and 30, 1949, and one at Farah on February 22, but I dare not say whether these were *minor* or *excubitor*. The same applies to one seen in the Tarnak Valley on February 17. During a drive down this valley on June 25 I saw again a few, and the next day some in the cultivated areas west of Kandahar. Unfortunately, I passed only through this region so I did not have the opportunity to decide which of the two shrikes is breeding at Kandahar.

The status of *L. excubitor* in Afghanistan is very little known. In the province of Kandahar *L. e. pallidirostris* seems to be a winter visitor. This race is the breeding bird from Transcaspia to Mongolia and south to Syr Darya. Ticehurst (1926, Jour. Bombay Nat. Hist. Soc. 31: 701) refers also the population of Baluchistan to this race; according to other authors it belongs, however, to *aucheri* which inhabits the region from Palestine to Iran. The only specimen of the Great Grey Shrike collected in Afghanistan during the breeding season was referred to *aucheri* by Whistler (1944, Jour. Bombay Nat. Hist. Soc. 45: 70). It was a male taken on May 3, 1885, at Shore Kaltegai in Siah Bubak west of Gulran in the northwestern corner of the country (Aitchison 1889: 76). The Indian race *lahtora*, which according to Hartert (1910, 1: 430) "bewohnt die Ebene Indiens... westlich bis Sindh, Afghanistan und Baluchistan" seems never to have been recorded from Afghanistan.

(232). Hypocolius ampelinus Bonaparte – Grey Hypocolius Synonym: Hypocolius ampelinus orientalis Koelz, Proc. Biol. Soc. Washington **52**: 64 (1939 – Kandahar)

Faizabad, Seistan

Iris dark brown. Feet flesh colour.

a flock consisting of 5-6 Hypocolius. It was in a low tamarisk scrub among some fields. They perched close together in the top of the low bushes, but were also seen settling on the ground. The 18th we saw again four, namely one male and three females. They were very wary and disappeared when I had collected one. In the male collected the testes were enlarged and injected. In the two females dissected the sex organs were slightly enlarged.

On May 5 I saw a flock of about a dozen individuals on a small wooded island in the Helmand river at Lashkari-Bazar, south of Girishk. The status in Afghanistan of this species is not clear, but its occurrence as late as May 5 makes it probable that it breeds somewhere in the southern parts of the country.

When the male erects the nape and crown feathers the black patch behind the eye is much enlarged. Presumably, it functions as a kind of signal. During the flight it has a call note which to some extent reminded me of that of *Merops apiaster*.

(233). Cinclus cinclus leucogaster Bonaparte – White-bellied Dipper Obeh, W Afghanistan

11. vii. 49.
$$\bigcirc$$
 2×1 we. 41 wi. 88 juv.

Bamian, Central Afghanistan

13. ix. 49.
$$\bigcirc$$
 6×3 — 50 — 91
4. x. 49. 0 — 49 — 89

The two adults had nearly completed the moult, but many body feathers were still growing.

For a discussion of *C. cinclus* in Afghanistan and neighbouring countries see VAURIE (1951, Am. Mus. Nov. 1485: 11).

The White-bellied Dipper I found as far west as at Obeh, where on July 11, 1949, I saw two young birds along the very small brook in the side valley at an elevation of 2050 m. — In Hazarajat on June 12 I observed one along the main river and another along a small brook near Panjao. — Finally, I found it in the Bamian region in September and October. There it lived only along the small mountain brooks at elevations between

7. vi. 48.
$$3 \times 4 - 78 - 99$$

12. v. 48. $9 \times 10 \times 5 - 71 - 91$

Stiewe, Nuristan

20. vi. 48.
$$9 \times 4 - 64 - 94$$

The irregular moulting period in this species may start very early in the year as shown by the female collected on May 12 in which new feathers were growing around the eye. In the male from June 7 and in the female from the 12th some body and head feathers were growing.

As to the validity of the subspecies kargasiensis see VAURIE (1. c., p. 16).

The two species of dippers in Afghanistan seem partly to replace each other geographically. C. c. leucogaster occurs from the region of Herat in the west to Ghorband Valley in the east. C. pallasii occurs also in this valley, but according to Meinertzhagen (1938: 692) at lower altitudes than C. cinclus. Further east C. pallasii is distributed in Nuristan and Badakhshan.

On February 27–29, 1948, I saw a few Brown Dipper along the Pech River between Chigha Sarai and Gusalek. Presumably, it visits this part of the river only during the winter season for I never saw it again during the rest of my stay at Gusalek (until the end of March). – Higher up the Pech-Parun Valley, at Wama, Pashki and Stiewe (2600 m.), it was in its breeding grounds. At Wama, where the main river is a vigorous and deep torrent at spring time, only a few were seen there, while it was rather common along the smaller mountain torrents with numerous falls.

The breeding season seems to start very early. In the male collected on February 29 the testes were already rather enlarged, and on April 9 I met the first family party at Wama. In a juvenal collected some of the primaries were still not fully grown out. At Pashki the breeding season probably falls a little later, for there I did not observe a family party until May 14, and another pair had presumably still young in the nest on the 31st.

Dr. Vaurie has had the kindness to compare the specimen above with the material in the American Museum. He found it to be a very good neglectus which is the race inhabiting the region from Kumaon to Kashmir and, as shown by this specimen, as far west as Nuristan.

T. t. neglectus was not taken earlier in Afghanistan where two other subspecies are known to occur, namely magrathi in the Safed Koh at the southeastern border of the country, and tianschanicus (synonym: subpallidus) which has been collected from Bend-i-Turkestan to Pul-i-Khumri in northern Afghanistan and probably at Paghman west of Kabul.

Between February 27 and March 22, 1948, I made three observations of single Wrens at Gusalek in the Lower Pech Valley, Nuristan, where we camped from February 24 until March 28. Probably the Wren does spend only the most severe winter time there. On May 18 I found it in its breeding ground above Pashki at an elevation of 3600 m. The habitat was a mountain slope with boulders and juniper scrub above the limits of forest. Only one individual was observed.

(236). Prunella collaris rufilata (Severtzov) – Alpine Accentor Stiewe, Nuristan

20. vi. 48.
$$3$$
 14×10 we. 29 wi. 95 3 17×10 — 32 — 101 2 5×3 — 28 — 94 2 4 — 29 — 89

Dr. Marien has had the kindness to compare my specimens with the material in the American Museum. He writes: "We have only two specimens of rufilata from Turkestan and they are in fresh plumage. They are much lighter above than your four birds, though the rufous flanks are alike in color. I would say, however, that they cannot be safely compared because of the seasonal difference. Compared with specimens of whymperi from Kumaon in similar plumage, the rufous flanks of your birds are lighter, the back slightly lighter, but almost imperceptibly so. – I would conclude that your birds are most likely rufilata."

The Alpine Accentor I found only in Nuristan where it breeds in the

their maximum size as were the vesiculae seminales. In one of the two females from the same date the follicles had just gone into the period of maximum growth, in the other the development was less advanced. These observations indicate that the breeding season commences by the end of June.

(238). Prunella strophiata jerdoni (Brooks) - Jerdon's Accentor

Synonym: Prunella strophiatus sirotensis Koelz, Proc. Biol. Soc. Washington 52: 67 (1939 - Sirotai (Saroti), Gardez, E Afghanistan)

Stiewe, Nuristan

17. vi. 48.
$$3$$
 11×8 we. 16 wi. 68

Vaurie has shown (1955, Am. Mus. Nov. 1751: 20) that sirotensis is not separable from jerdoni (Kashmir). According to Dr. Marien (in lit.) the specimen above agrees well with a series of jerdoni in comparative plumage.

I found Jerdon's Accentor only in one locality, namely in one of the valleys at Stiewe in Nuristan. There it inhabited a low willow scrub at an elevation of 3200 m. Besides the male collected I saw another individual. The large injected testes and the much enlarged *vesiculae seminales* show that the bird was in a sexually active stage.

Next to a male and a female taken by Koelz at Saroti this is the second record in Afghanistan.

(239). Prunella atrogularis - Black-throated Accentor

- a. Prunella atrogularis atrogularis (Brandt)
- b. Prunella atrogularis huttoni (Horsfield & Moore)

Accentor huttoni Horsfield & Moore, Cat. Birds East India Comp. Mus. 1: 360 (1854 – Simla and Afghanistan)

a. Estuary of Farah Rud, Seistan

26. ii. 49.
$$3 1^{1}/2$$
 wi. 74

b. Gusalek, Nuristan

3. iii, 48. o we. 19 wi. 74
8. iii, 48. o
$$-21$$
 -75
 3 2×1 -20 -76
15. iii, 48. 9 5×3 $-$ 70

(240). Prunella fulvescens fulvescens (Severtzov) – Brown Accentor Weran Valley, Badakhshan

Bamian, Central Afghanistan

13. ix. 49.
$$3 1^{1}/_{3} \times 1 - 20 - ?$$

On September 13, 1949, I found half a dozen Brown Accentors in a bowlshaped, stony valley above Bamian at an elevation of 3100–3200 m. The male collected was moulting its primaries, rectrices, and body feathers, so the birds were most likely in their breeding ground. On October 4 I observed a few more in a very similar habitat at an elevation between 3400 and 3500 m. – A juvenile bird was collected on July 21, 1948, at 3650 m. in the Weran Valley, Badakhshan. In this province it was also taken by Koelz during the breeding season, and his moulting specimens collected during September and October in Bend-i-Turkestan probably show that this species breeds in most of the country from west to east.

(241). Luscinia megarhynchos hafizi Severtzov - Nightingale

Panjao, Central Afghanistan

15. vi. 49.
$$3$$
 we. 25 wi. 94
12. vi. 49. 9 8×4 — 21 — 90

Obeh, W Afghanistan

11. vii. 49.
$$\bigcirc$$
 — 22 — 87
12. vii. 49. \bigcirc 4×2 — 22 — 88
 \bigcirc \bigcirc \bigcirc \bigcirc 1/2×1/2 — 18 — juv.

I have not been able to compare this small series with topotypical hafizi from Turkestan. Compared, however, with a series of spring birds of nominate megarhynchos from Macedonia the upper parts are distinctly greyer, not so reddish, and correspond to the description of hafizi, showing the difference which characterizes this race from megarhynchos. In two males from Lenkoran (africana) the upper parts are darker, more brownish, than in the Afghan specimens.

MEINERTZHAGEN (Ibis 1938: 688) seems to be the only one who has previously recorded the Nightingale from Afghanistan. He observed it only

vesiculae seminales were enlarged as in the active stage. – At Obeh in western Hazarajat I heard very little song in the middle of July. In both of the adults collected the postnuptial moult had started. In the young bird the primaries were not yet fully grown out. At Obeh the Nightingale did not live in the main valley but in scrub in the rather narrow side valley. It was found up to an altitude of about 2300 m.

(242). Luscinia svecica - Bluethroat

- a. Luscinia svecica pallidogularis (Sarudny)
- b. Luscinia svecica saturatior (Tugarinov)
- c. Luscinia svecica abbotti (Richmond)
- a. Estuary of Farah Rud, Seistan, 26.-30. iii. 49.

Weight 33: 14, 15, 17, 17, 18

Wing 33: 71, 71, 71, 72, 73

b. Bamian, Central Afghanistan, 13. ix.-14. x. 4

Adults and subadults:

Weight 11 33: 15-17 (16,0); 5 99? 14-16 (14,6); 6 sex ?: 14-17 (15,0)

c. Panjao, Central Afghanistan

12. vi. 49. 36×4 we. 19 wi. 74

13. vi. 49. $\stackrel{?}{\circ}$ 6×4 - 14 - 75

14. vi. 49. \bigcirc 3 — 19 — 70

o — 16 — 71 juv.

Tilli, Badakhshan

This series consists of 1) spring migrants from Seistan in southwestern Afghanistan, 2) autumn migrants from Bamian in central Afghanistan, and 3) breeding birds from the central and northeastern parts of the country, and represents three different subspecies. The birds from Seistan agree with breeding birds of pallidogularis from western Siberia in having pale upper parts and throat. The throat spot in two of the specimens is darker, in the other paler redbrown.

The upper parts in the autumn migrants from Bamian are dark as in saturation but slightly greyer, not so brownish, as in this race. In view of

The type of this form came from Ladak, but Vaurie (1955, Am. Mus. Nov. 1731: 10) includes also the populations from Gilgit, Baltistan, and Zaskar in this subspecies and he questions the statement of Tugarinov (1929, Ann. Mus. Zool. Acad. Sci. U.R.S.S. 29: 1–14) that this race inhabits also the Pamirs and eastern Buchara. I have not been able to compare my Afghan breeding birds with material of abbotti but they are neither pallidogularis nor saturatior (= tianschanica = altaica) and their throat spot is white in two specimens, redbrown bordered with white in the two others as described for abbotti. Two males collected in March at Kabul by Maconachie are by Whistler (1944: 66) also referred to this form.

In Nuristan I did not find the Bluethroat and in Badakhshan I observed it only in the higher parts of the Kokcha Valley at an altitude of about 2700 m. near Tilli and Nau where it inhabited the willow and Hippophaës scrub along the river (Fig. 9). It presumably had young still not fledged at June 30, when I saw an adult flying with food. In the female from July 18 the postnuptial moult had started. – At Panjao in eastern Hazarajat I found it in the same habitat as in Badakhshan. In the male from June 13 the *vesiculae seminales* were enlarged as in the active stage. On June 14 I collected a fully fledged young. This, presumably, is the first breeding record for the Bluethroats in Afghanistan.

During the spring migration of 1949 we saw a few in the tamarisk scrub in the estuary of Farah Rud on March 26–30, and on April 6 a male (and a female?) along the river at Farah.

The autumn migration of the same year we observed at Bamian where the first birds appeared on September 13. From then on we saw a few but no more than half a dozen on most days until October 15. I found it especially in a poplar plantation along the river, but also in lucerne fields as well as among rocks at an altitude of 2900 m. in a side valley and among tussocks along a small brook in Darra-i-Shahidan at 3000 m.

(243). Luscinia brunnea brunnea (Hodgson) – Indian Bluechat Pashki, Nuristan

22. v. 48. 3×5 we. 14 wi. 76

intermixed with scrub. The voice is unmistakably nightingale-like with 2-3 high flute tones followed by a trill. It is a very skulky bird, exceedingly difficult to drive from its cover in the dense scrub.

(244). Luscinia pectoralis ballioni (Severtzov) – Himalayan Rubythroat Stiewe, Nuristan

17. vi. 48.
$$39 \times 5$$
 we. 20 wi. 70

I have not been able to compare this specimen with ballioni (Ferghana and Tianshan) and nominate pectoralis (Himalayas from Gilgit to Nepal). VAURIE (in lit.), however, informs me that breeding birds collected by Koelz in Afghanistan are ballioni, not nominate pectoralis.

The specimen above was collected in a willow scrub around a banda at an altitude of 3200 m. above Stiewe and it was the only individual I ever saw. The testes were enlarged and *vesiculae seminales* protruding.

STUART BAKER (2: 93) includes Afghanistan in the breeding range of this species but it is not possible to find any authority for this statement. The Stiewe specimen seems to be the first one published from Afghanistan.

(245). Irania gutturalis (Guérin) - Persian Robin (White-throated Robin) Obeh, W Afghanistan

15. vii. 49.
$$\sqrt{3}$$
 1¹/₂×1 we. 26 wi. 98

The Persian Robin I found only at Obeh where, in the middle of July, there were a few in the scrub in the bottom of the side valley at altitudes between 1800 and 2100 m. The specimen above was in postnuptial moult with many body feathers growing.

There are only two other records from Afghanistan. Meinertzhagen (Ibis 1938: 690) saw a pair at Bamian on April 23. In the male the testes were much enlarged. Maconachie (Whistler 1944: 66) has also collected a female at Kabul on May 24. This last bird at any rate, presumably was taken in its breeding area.

(246). Phoenicurus ochruros phoenicuroides (Horsfield and Moore)

– Black Redstart

Tilli, Badakhshan

19. vii. 48. $3 \times 4 \times 2$ we. 15 wi. 84

Baqrabad, Seistan

28. ii. 49. $3 \times 1 \times 1/2 - - 85$

Panjao, Central Afghanistan

13. vi. 49. $3 \times 4 \times 3 = 14 = 77$

Bamian, Central Afghanistan, 8. ix.-14. x. 49.

Weight ♂♂ ad.: 15, 15, 16, 16, 18; subad.: 17; ♀♀: 14, 15

Wing ♂♂ ad.: 82, 85, 86, 86, 86; subad.: 81; ♀♀: 80, 82.

A subadult collected on September 4 at Bamian is a male in postjuvenile moult. The fresh plumage is also female-like as the juvenile plumage was. The breeding male from Panjao is in female plumage. In a female from September 9 and in a male from the 22nd the body feathers were still growing after the postnuptial moult.

The birds show rather a good deal of individual variation but may all belong to *phoenicuroides* although I have not been able to compare them with material of this race. In the males from spring and summer the colour of the crown, which varies from greyish to greyish-black, contrasts with the coal-black back. In the bird from Baqrabad and in a male collected on September 22 at Bamian the upper parts are less black than in all the other specimens.

During the breeding season I found the Black Redstart only at rather high altitudes in the central and northeastern parts of the country. In the Parun Valley in Nuristan I collected a male at Pashki on May 10. It was flushed from some scrub in the bottom of the main valley together with a female. The testes were enlarged and injected, but nevertheless, I believe, it may have been a migrant, as also a few were seen the next day, though this redstart was usually not seen at this low altitude. It bred, however, above Pashki where I shot a male on June 6 at an altitude of about 3200 m. Its vesiculae seminales were enlarged. The habitat was a rocky mountain slope with plants characteristic of the Artemisia steppe. On July 25 I saw some again at 3600 m. above Pashki. – Above Stiewe I found it breeding in willow scrub at altitudes between 3200 and 3600 m. A female shot on

In eastern Afghanistan I saw a male at an altitude of about 2800 m. in the Saroti Kotal on May 25. – In central Afghanistan I saw several on June 10 from Unaï Kotal and westwards. At Panjao, however, I saw only the male I collected. – On June 5–6 it was very common in some parts of the Bamian Valley and in the high valleys west of it, in the direction of Band-i-Amir. A nest placed in a hole in a rock wall contained downy young. When I returned to this area in the beginning of September I found the redstart common on the same places as in June. At the end of the month their number decreased considerably, thus I did not see a single bird on a drive to Band-i-Amir the 28th. In the Bamian Valley I made the last observations on the 30th and on October 4.

During all the time we were in Seistan we observed only the male collected at Baqrabad on February 28 and two single males on March 7 and 18 in the tamarisk scrub in the estuary of Farah Rud. These may have been winter visitors as some birds seem to remain in southern Afghanistan during the winter.

(247). Phoenicurus frontalis Vigors – Blue-fronted Redstart Pashki, Nuristan

10. v. 48. $3 \times 4 \times 3$ we. 18 wi. 88

I have not been able to compare this specimen with material from the Himalayas. According to Vaurie (1955, Am. Mus. Nov. 1731: 16), however, the species seems to be monotypic. It is the first record of the Bluefronted Redstart for Afghanistan. Stuart Baker (2: 69) had included Afghanistan in the breeding range, it is true, but apparently without authority for his statement.

I collected the bird in the hazel scrub in the bottom of the valley at an altitude of 2200 m., and it was the only one I ever saw. Presumably it is a scarce breeding bird in Nuristan.

(248). Phoenicurus erythrogaster grandis (Gould) – Güldenstädt's Redstart Ruticilla grandis Gould, Proc. Zool. Soc. London 17: 112 (1848 – Afghanistan and

found it very common on the 15th "but at that date there was no evidence of its nesting" (Sharpe 1891: 88). – At Bamian a few, presumably migrants, appeared on October 14–15. It was the only opportunity I ever had to observe this bird.

(249). Phoenicurus erythronotus (Eversmann) – Eversmann's Redstart

Synonym: Ruticilla rufogularis Moore, Proc. Zool. Soc. London 22: 27 – (1854 – N. India, but according to Whistler (1944: 65) the type was collected by Griffith at Pashat in the Kunar Valley, Afghanistan)

Gusalek, Nuristan

Bamian, Central Afghanistan
15. x. 49. ♀ — 17 — 83

Eversmann's Redstart is a passage migrant and winter visitor to Afghanistan. The spring migration 1948 passed through Gusalek in the Pech Valley (Nuristan) in March. Besides the birds collected there I saw half a dozen on the 10th in oak scrub at an altitude of 1500–1700 m. – In the spring of 1949 we saw some in the hotel garden in Farah on February 22. – At Bamian the only one I saw with certainty was the bird listed above.

(250). Phoenicurus coeruleocephalus Vigors – Blue-headed Redstart Gusalek, Nuristan

Wama, Nuristan

4. iv. 48.
$$3 \times 4 \times 3 \times -16 \times -83$$

 $9 \times 5 \times 3 \times -13 \times -78$

Pashki, Nuristan

passed up the valley from March 19 to April 14. Until April 3 only males had appeared. At Pashki it was on its breeding range and was a rather common bird there in the coniferous forest, but I found it also in hazel scrub in the bottom of the valley and especially in *Juniperus* above the forests up to an altitude of 3300 m. In all the males collected in May the testes were enlarged and injected. The female taken on June 11 at an elevation of 3300 m. had an egg in the oviduct. The clutch size would presumably have been four. I saw it only in the Pech-Parun Valley, but not at Stiewe above the forest zone.

(251). Chaimarrornis leucocephalus Vigors – White-capped Redstart Gusalek, Nuristan

3. iii. 48.
$$3$$
 2×1 we. 30 wi. 101 27. ii. 48. 9 -29 -98 11. iii. 48. 9 5×3 -25 -89 Wama, Nuristan 13. iv. 48. 3 3×2 -30 -95

6. iv. 48.
$$\ \ \bigcirc \ \ 6 \times 3 \ \ \ -27 \ \ -90$$

Pashki, Nuristan

13. v. 48.
$$3 \quad 10 \times 6 \quad -35 \quad -100$$

 $2 \quad 3 \quad -29 \quad -88$
6. vi. 48. $2 \quad 1 \quad -24 \quad -86$

Bamian, Central Afghanistan

22. ix. 49.
$$\sqrt{3} \ 1^{1/2} \times 1 \ -31 \ -100$$

There seems no reason to recognize *pamirensis* as shown by VAURIE (1955, Am. Mus. Nov. 1731: 19).

On February 19, 1948, I saw a single White-capped Redstart at Darontah near Jalalabad. At Gusalek in Nuristan it was seen several times from the end of February through March along the Pech and Digal rivers and along the irrigation canals in the cultivated fields. At the end of March they were in pairs. — Around Wama in April I found only a few. In one case it was along the main river, the others along a brook up to an altitude of 2000 m.

had testes of about maximum size and the female from the same date had presumably finished laying shortly before. – At Stiewe I saw a few high up in side valleys on June 17 and 20.

Outside Nuristan, my only record is that of the specimen collected on September 22 in the Bamian Valley at an elevation of 2600 m.

(252). Rhyacornis fuliginosus fuliginosus Vigors – Plumbeous Redstart Gusalek, Nuristan, 29. ii.-17. iii. 48.

Weight ♂3: 16, 18, 18; ♀♀: 13, 13, 14, 15 Wing ♂3: 76, 77, 77; ♀♀: 68, 69, 70, 70

Pashki, Nuristan, 12. v.-1. vi. 48.

Weight ♂♂ ad.: 17, 18, 18; juv.: 14; ♀: 15 Wing ♂♂: 77, 78, 79, 80; ♀: 69

Wama, Nuristan

11. iv. 48. 3×4 we. 17 wi. 79

Stiewe, Nuristan

16. vi. 48. $3 \times 4 - 17 - 76$

Stuart Baker (2:82) included Afghanistan in the area of the Plumbeous Redstart, but there seems to have been no basis for this statement until Koelz collected it in Safed Koh (Vaurie 1955, Am. Mus. Nov. 1731:20) and I found it rather common along the Pech-Parun River in Nuristan. Down at Gusalek it was rather common at the end of February and in March. During the last part of our stay there the birds were in pairs, and in the males from March 11 and 17 the testes were already much enlarged $(7\times4$ and $5\times3)$. Presumably, however, they were still in their winter quarter, for I did not see any there when we returned in the beginning of August. At Wama it occurred along the main river but was most common along some mountain torrents where they were in pairs in April and were always to be found at the same places. At Pashki in May–June it was most common along the main river but was found also up to an altitude of 2400 m. At Stiewe I saw only a few pairs and some juvenals at the end of June.

While Chaimarrornis leucocenhalus is a hird of the stream banks.

is a rather insistent twitter, not very loud but sufficiently high pitched so that it can be heard above the noise of the torrent. These high pitched notes are characteristic of several river birds, and especially the Whistling Thrush.

Shibar Kotal, Central Afghanistan

Panjao, Central Afghanistan

11. vi. 49.
$$\vec{0}$$
 9×6 — 40 — 122
13. vi. 49. $\vec{0}$ 5×4 — 44 — 120

14. vi. 49.
$$\eth$$
 5×4 — 54 — 119

The Rock Thrush is not a common bird in Afghanistan. I observed it only at Bamian, at 2800 m. just west of the Shibar Kotal, and in the upper Ghorband Valley in the beginning of June and in Hazarajat at some localities at altitudes of 2700–3000 m. between Unai Kotal and Panjao in the middle of June and finally a single bird 65 km. north of Shin Dand on July 1. Most of the birds I saw were on rocky slopes, but the female from June 17 was collected, however, on the outskirts of a willow scrub along the river at Panjao. The breeding season seemed to be over by the middle of June.

(254). Monticola solitarius - Blue Rock Thrush

- a. Monticola solitarius longirostris Blyth
- b. Monticola solitarius pandoo (Sykes)
- a. Obeh, W Afghanistan

17. vii. 49.
$$3 \times 1$$
 we. 50 wi. 120

Bala Murghab, NW Afghanistan

24. vii. 49.
$$\bigcirc$$
 4×3 - 51 - 113

Haibak, N Afghanistan

2. viii. 49.
$$3 \times 1 = 53$$

b. Wama, Nuristan

28. iv. 48.
$$3$$
 8×5 - 43 - 116

Stiewe, Nuristan

males from Obeh and Haibak, which are in the postnuptial moult, the new, blue feathers are considerably paler than in the birds from Nuristan.

In western Afghanistan I saw only the male which I collected at an altitude of 2100 m. near Obeh on a rocky mountain slope with scattered small bushes. – In northern Afghanistan we saw some family parties on the rocky slopes along a tributary of Murghab, July 24, and a few individuals around Haibak in the beginning of August. – In Badakhshan I saw a few in the Kokcha Valley in July 1948 as far as the region between Jurm and Faizabad, and in the Sanglich Valley. Unfortunately I collected no specimens in this province so I cannot be certain whether its population belongs to *longirostris* or to *pandoo*.

In the Ghorband Valley in central Afghanistan there were a few in the beginning of June, and on both sides of the Shibar Kotal on September 5, but I saw none in the Bamian Valley or on the trips from there during the rest of September and the first half of October. – Around Kabul I recorded only a single bird in the Tangighore Gorge on May 20.

In Nuristan it is a scarce and very local breeding bird. At Wama I saw two birds on April 28 and 29 which may have been on migration. Above Pashki it bred presumably in some rock walls at an elevation of about 3300 m., the only place where I found it there (May 29, June 11). Around Stiewe it was common up in the side valleys. In all the males from June 20 the testes were in or near their maximum size. The female from the 23rd had an egg in the oviduct and her ovary showed 4 calyces and a single large follicle, so the clutch presumably would have been of 5 eggs.

(255). Monticola cinclorhynchus (Vigors) – Blue-headed Rock Thrush Pashki, Nuristan, 8.-30. v. 48.

Weight る: 29, 30, 32, 32, 33 Wing る: 99, 98, 100, 101, 103

I observed the Blue-headed Rock Thrush only in Nuristan. In the oak forests at Wama a few appeared at the end of April and in the first days of May. They sang, perched in the tree tops so presumably they were on their breeding grounds. At Pashki it was more common and was found at the

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Pashki, Nuristan
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14. v. 48.
$$3 \times 7 \times 2$$
 we. 11 wi. 69

Estuary of Farah Rud, Seistan

18. iii. 49.
$$3 \quad 6 \times 4 \quad -15 \quad -69$$

2. iii. 49. $9 \quad 7 \times 3 \quad --- \quad -69$

Panjao, Central Afghanistan, 12.-16. vi. 49.

Weight 5
$$33$$
: 12-14 (13,0); 99 ad.: 14; pull.: 13 Wing 5 33 : 68-71 (69,8); 99 : 69

Bamian, Central Afghanistan, 6. ix.-14. x. 49.

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Weight 11 33: 11-15 (12,7); 10 99: 11-13 (12,1)
Wing 11 33: 68-72 (69,8); 10 99: 66-71 (67,7)
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In these specimens there is only a slight amount of white at the base of the rectrices as is said to be typical for maura (synonym indica). In this and other respects they are not separable from a series from western Siberia.

The Stonechat is not a common breeding bird in Afghanistan. I am certain only that it breeds around Panjao in Hazarajat. Here, on June 16, I found a nest which was well concealed under the branches of a small willow bush at an altitude of 1700 m. It contained 4 young and one spoiled egg. The tail and wing feathers were just sprouting in the young. In only one of the five males collected at Panjao the testes were at their maximum size and the *vesiculae seminales* much enlarged. – The only other locality where I found it during the breeding season was at Pashki in Nuristan. Here I collected a male on May 14 in which the testes were fully developed and injected. Although I visited the collecting place several times it was the only individual I ever saw during all the summer spent in Nuristan and Badakhshan.

During the spring migration of 1948 I observed a few at Gusalek in Nuristan between March 23 and 30. In the early spring of 1949 I saw three between Dilaram and Farah on February 21 and a few in the tamarisk scrub at Hamun-i-Sabari on March 2 and 18. These birds may have been in their winter quarter as Swinhoe and St. John found it a common winter visitor in southern Afghanistan around Kandahar. Some migration was noticed in the autumn of 1949 in the Bamian area where I saw from a few to half a dozen or more on most days between September 6 and October 14.

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Shin Dand, W Afghanistan, 28.-29. vi. 49.
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Weight 33 ad.: 23; subad.: 16, 25; juv.: 20 Wing 33 ad.: 76; subad.: 71, 74; juv.: 73

Herat, W Afghanistan, 2.-3. vii. 49.

Weight ♂♂: 15, 15; ♀ juv.: 12 Wing ♂♂: 75, 77; ♀ juv.: 73

Bamian, Central Afghanistan, 8. ix.-6. x. 49.

Weight 33 ad.: 16, 17, 26; subad.: 13, 14, 15, 16, 16; 99: 15, 15, 18 Wing 33 ad.: 74, 75, 79; subad.: 73, 73, 74, 74; 99: 70, 73, 76

I have not been able to compare this series with topotypical rossorum and bicolor, but Vaurie (in lit.) informs me that rossorum is perfectly valid and that Afghan birds are rossorum, not bicolor.

My males in this series from Afghanistan show a considerable amount of individual variation in the extent of the white of the abdomen. In the males from Farah, which were presumably breeding, and—with a single exception—in the passage migrants from Bamian the white area is much extended, while it is rather small in birds from Shin Dand.

The Pied Bush-Chat is a common breeding bird at the lower altitudes, but it avoids completely the mountainous parts of the country. In Seistan proper Cumming (1905: 687) collected a breeding pair at Kuhak on May 7. It must be a very scarce breeding bird, however, in this area for we never saw it during our rather long stay on the lower Farah Rud. On visits to Farah April 2–6 we found it very common in the hotel garden and in bushes along the river. The males were singing eagerly. At the end of the month the situation was unchanged. In the males from the 30th the gonads were at or near their maximum size (from 5×3 to 9×5), and the vesiculae seminales well developed. In the female from the 28th the sex organs were also at their maximum stage and the bird would have started laying within a day or two. In another female from the 30th the sex organs were rather undeveloped and perhaps this individual represented birds which were still on migration for when we revisited Farah on June 27 the number had decreased considerably.

Southern Afghanistan: On May 4-7 it was common in Girishk, at

Western Afghanistan: We found it to be common in the fields around Shin Dand and in willow plantations along the river. There were many young flying about on June 28–30. In Herat it was common also and was seen often in the town gardens. Young were seen everywhere during the first week of July. It occurred also in the Hari Rud Valley east of Herat to east of Obeh but only in the main valley. Farther east we did not see it, and as we never saw it in eastern Hazarajat in June I presume that it avoids all the central highlands.

Northern Afghanistan: We saw it in the last week of July at: Qala Nau, Bala Murghab, Maimana, Andkhui, between Shibarghan and Aq Chah, and on August 4-5 on the Danaghori Plains.

During the autumn migration of 1949 I observed a few in the Bamian area on several days between September 7 and October 6, and on the 15th again a single male. In one case a female appeared at an altitude of 3050 m.

During the spring and summer of 1948 this species was not found in Nuristan and Badakhshan.

(260). Cercotrichas galactotes familiaris (Ménétries) – Grey-backed Warbler Faizabad, Seistan

10. iv. 49.
$$3$$
 7×5 we. 22 wi. 88

Farah, SW Afghanistan

27. iv. 49.
$$3 \times 5 \times 5 = 28 - 89$$

Obeh, W Afghanistan

Qala Nau, NW Afghanistan

23. vii. 49.
$$3 \frac{1^{1}}{2} \times 1 - 21 - 88$$

Bala Murghab, NW Afghanistan

Bamian, Central Afghanistan

7. ix. 49.
$$3^{-1/2} \times 1/2 = 18 = 86$$
 subad. 14. ix. 49. $3^{-1/2} \times 1 \times 1 = 16 = 84$ subad.

Topotypical familiaris from Transcaucasia was not available for comparison but the four adult birds agree, however, with four specimens collected in the Zagros in western Iran, May 16-20. The two juvenals from

at Tirpul and one in the fields at Obeh on July 9 and 16. In northern Afghanistan it was more common. Here I saw it at several localities between Qala Nau and Shibarghan, July 23–30, in tamarisk scrub or in high herbs in the dry steppe.

During the autumn migration 1949 a few appeared at Bamian on September 7 and 14.

(261). Oenanthe xanthoprymna chrysopygia (De Filippi) – Red-tailed Chat Darontah, Jalalabad

20. ii. 48.
$$3 \times 1 \times 1$$
 we. — wi. 93

Gusalek, Nuristan

23. iii. 48.
$$3 \times 2 = 25 = 97$$

Miyan Deh, Badakhshan

1. vii. 48.
$$38 \times 5 - 22 - 94$$

 $38 \times 5 - 20 - 92$

Tera Kotal, E Afghanistan

26. v. 49.
$$3 \times 7 \times 4 = 21 = 92$$

 $9 \times 1 = 29 = 92$

Ghorband, Central Afghanistan

2. vi. 49.
$$36 \times 5 - 22 - 93$$

Panjao, Central Afghanistan

13. vi. 49.
$$3 \cdot 6 \times 4 = 22 = 92$$

14. vi. 49. $2 \cdot 1 \times \frac{1}{2} = 22 = \text{juv.}$

Obeh, W Afghanistan

Bamian, Central Afghanistan, 8. ix.-16. x. 49.

Weight
$$33: 20, 21, 23, 24; \text{ sex } ?: 24, 27; $\pi\p: 20, 21, 24$ Wing $33: 92, 93, 93, 98; \text{ sex } ?: 92, 95; $\pi\p: 88, 91, 92$$$$

I have not been able to compare the Afghan series with freshly moulted, topotypical chrysopygia from Iran. VAURIE (1949, Am. Mus. Nov. 1425: 9) found his Afghan specimens in fresh plumage to be distinctly and constantly paler than chrysopygia, and for this pale subspecies he revived the name kingi Hume, given to a winter visitor collected at Jodhpur in western Rajputana. Dr. VAURIE (in lit.), however, thinks now that kingi is too slight and is better considered a synonym of chrysopygia.

During the breeding season I found the Red-tailed Chat in western Afghanistan on a stony mountain ridge at an altitude of about 2500 m. above Obeh, July 15, and south of the Sauzak Kotal, July 22. In central Afghanistan I saw it at several localities from Panjao over the Unaï Kotal to Maidan Valley, June 9–19; and from the Ghorband Valley to Darra-i-Shikari, Bamian and the high valleys between Bamian and Band-i-Amir, June 2–6. – In eastern Afghanistan I found it at 2700 m. in Tera Kotal near Gardez. The female of the pair collected there on May 26 was laying. Two eggs had been laid, one was in the oviduct, and two more follicles would presumably have left the ovary, which indicates a full clutch of 5 eggs. – In the desolate valleys of Badakhshan—Kokcha, Warduj and Sanglich—it was rather common from an altitude of about 2700 m. down to about 2000 m. in July. – It mostly occurred on stony mountain slopes but could also be seen on dry fallow fields.

Outside the breeding season I observed it in the valley of the Kabul River between Sarobi and Jalalabad on December 14, 1947, and February 19–20, 1948. In Nuristan I saw a single bird at Gusalek on March 23. When I began the autumn observations in the Bamian area on September 6, 1949, I found several Red-tailed Chats there and their number seemed rather constant during the first week, thereupon it decreased for some days and then increased again to about the earlier number for the rest of the month. In the first week of October I only observed a few and none from 10th to 15th. There was nothing like a mass migration coming through the area and it was very difficult to know whether the birds consisted of birds on passage or represented the departure of the breeding population.

(262). Oenanthe oenanthe oenanthe (Linné) – Common Wheatear Panjao, Central Afghanistan, 14.–16. vi. 49.

Weight ♂♂: 22, 22, 23, 24, 25; ♀: 25

Wing ♂3: 94, 95, 97, 97, 100; ♀: 92

Unaï Kotal, Central Afghanistan

10. vi. 49. Q 2 we. 24 wi. 92

Shibar Kotal, Central Afghanistan

2. vi. 49. $3.7 \times 4 - 25 - 99$

however, supports (1949, Am. Mus. Nov. 1425: 10) the conclusions of Meinertzhagen and Kozlova that neither rostrata (probably migrants from "Upper Egypt, northern Arabia, and Syria") nor argentea (Bura, south of Lake Baikal) can be separated from nominate oenanthe, which also inhabits Afghanistan.

The distribution of the Common Wheatear in Afghanistan is rather restricted. We found it in three areas only: 1) On June 2–6 in the valleys just east and west of the Shibar Kotal, in the upper Bamian Valley between 2700 and 2800 m., and in the high valleys farther west in the direction of Band-i-Amir, 2) Between Unaï Kotal and Panjao in eastern Hazarajat, June 10–19, and 3) South of the Sauzak Kotal in the region of Herat on July 22.

In some of the males from the first half of June the gonads were near their maximum size and the *vesiculae seminales* somewhat enlarged, in other males the gonads were much smaller. In none of the females the sex organs were near the laying stage.

(263). Oenanthe pleschanka pleschanka (Lépéchin) – Siberian Chat Pashki, Nuristan

Stiewe, Nuristan

24. vi. 48.
$$3 6 \times 4 - 16 - 92 - 60 - 21$$

19. vi. 48.
$$9 6 \times 5 - 17 - 90 - 57 - 21$$

Iskan, Badakhshan

6. vii. 48.
$$\partial \frac{1}{2} \times \frac{1}{2} = 21 = 92 = 60 = 23$$
 juv. $Q = -16 = 84 = -54 = 22$

Faizabad, Badakhshan

10. vii. 48.
$$\vec{3}$$
 2×1 - 20 - 92 - - - 23

Tera Kotal, E Afghanistan

23. v. 49.
$$3 \times 5 - 18 - 94 - 62 - 23$$

26. v. 49.
$$3 \quad 7 \times 4 \quad -16 \quad -94 \quad -61 \quad -22$$

23. v. 49.
$$9 \times 5 - 20 - 89 - 60 - 22$$

Panjao, Central Afghanistan

Haibak, N Afghanistan

4. viii. 49. $\sqrt[3]{1 \times 1/2}$ we. 19 wi. — tl. 60 tr. 23

Bamian, Central Afghanistan

1. x. 49. δ $1 \times \frac{1}{2}$ -20 -97 -61 -2321. ix. 49. \circ 5×3 -21 -94 -- - 10. x. 49. \circ \circ \circ \circ \circ \circ \circ \circ 1 \times 1 \circ 17 \circ 91 \circ \circ \circ subad.

10. x. 49. $93 \times 2 - 19 - 92 - - -$ subad.

Lower Farah Rud, Seistan, 27. ii.-18. iv. 49.

Weight 10 33: 17-22 (18,9); 8 99: 16-20 (18,0) Wing 12 33: 89-98 (94,5); 8 99: 89-93 (90,8) Tail 12 33: 57-65 (60,9); 8 99: 56-60 (57,9) Tarsus 12 33: 22-23 (22,9); 8 99: 22-24 (22,6)

The males from July 10 and 26 and August 4 are moulting. In the female from July 6 the plumage is very badly worn but the moult has not yet started. In a male, collected on March 14 at Baqrabad, Seistan, the black colour of the tail is very reduced, rectrices 3 and 4 are completely white and 2 and 5 have only inconsiderable, dark patches. Some of the other specimens are intermediate between this individual variant and normally coloured birds. Hartert (1: 689) also found a great variation as to the tail pattern in this species. In the females from the end of March the colour of the throat varies much. In one it is almost black, in another practically no black is visible and further abrasion would not have changed the colour to black (phase vittata).

On his map of the distribution of Oe. pleschanka Grote (1937: 116) presumed that most of Afghanistan was included within the breeding area but at that time nothing was really known about its breeding in Afghanistan. Later, however, Whistler (1944: 63) showed that the "Oe. capistrata" which Whitehead found breeding in the Kurram Valley, just east of the Afghan border, was Oe. pleschanka. Whistler further presumed that "Saxicola morio", which Wardlaw-Ramsay (1880: 55) found a common breeding bird in the Hariab Valley on the Afghan side of the border, also was in reality pleschanka. Later Koelz collected a series of breeding pleschanka in northeastern and eastern Afghanistan (Vaurie 1949, Am. Mus. Nov. 1425: 14). My own observations show that it is a breeding bird

valley and up a side valley to well over an altitude of 2800 m. In a male collected June 24 at Stiewe the testes were near the maximum stage and the *vesiculae seminales* were much enlarged. The juvenile specimen from July 25 I collected above Pashki at an altitude of 3600 m. on a stony mountain slope over the tree limit. A second bird disappeared. *Oe. pleschanka* was the only *Oenanthe* I ever saw in Nuristan during the breeding season.

Badakhshan: Having crossed the Hindukush over the Weran Kotal to Badakhshan I did not find this chat again until down below Parwara in the Kokcha Valley at an altitude of about 2000 m. From there and down to Faizabad and back the Warduj Valley up to Zebak at 2400 m. I saw it at several localities July 5–14. In this area it occurred together with the more numerous *Oe.* "opistholeuca" (and a few of the colour phase "picata"), and I was unable to find any difference in their habitats which for both species are most typically desolate, stony stretches with scattered boulders and more seldom fallow fields at the border of small cultivated areas.

Southeastern Afghanistan: May 23–26 I saw a few in the Gardez area, namely at an altitude of about 2600–2800 m. in the valley running south from the Tera Kotal, and north of the Saroti Kotal. The pair collected on May 23 had a nest, with 6 nearly fresh eggs, in a small cavity in the side wall of a gully (drain). The outside of the nest was loosely built of coarse plant stems, the inside of very fine ones. In the middle of June I saw several between 2300 and 2800 m. in the Maidan Valley, east of the Unaï Kotal. Here it again occurred together with the two colour phases "opistholeuca" and "picata" of Oe. picata. West of the Unaï Kotal I only saw the male collected at Panjao.

Western Afghanistan: On July 6 I collected a juvenile female at an altitude of 1560 m. near the Ardewan Kotal north of Herat. All the other black-and-white chats which I observed and collected in the Hari Rud area were *Oe. picata* (phase "picata").

Northern Afghanistan: On July 26 I saw a few on the most desolate stretches between Bala Murghab and Maimana and on August 4 around the

(264). Oenanthe picata (Blyth) - Pied Chat Males of colour phase opistholeuca

Gusalek, Nuristan 24. iii. 48. 3×2 we. 21 wi. 86 tl. 62 tr. 24 subad. Iskan, Badakhshan 6. vii. 48. 3 8×4 -21 - 93 - 64 - 25-22 - 90 - 62 - 25 subad. ♂ 8×6 -24 - 87 - 60 - 25 subad. 7×4 ð -22 -90 -64 -24 subad. 8×5 Ghorband, Central Afghanistan -22 -94 -65 -24 subad. 7. vi. 49. 3 7×4 Maidan, E Afghanistan -21 -93 -68 -239. vi. 49. 9×5 19. vi. 49. 3 7×4 ₫ 7×4 -92 -63 -24 subad. **— 22** 9×6 3 8×5 -22 - 91 - 66 - 23 subad. 3 8×4 -22 -93 -62 -25 subad. 8×5 -24 -94 -68 -2528 km. south of Qala Nau, NW Afghanistan -22 - -69 -2522. vii. 49. 3 2×1 Tashkurghan, N Afghanistan 1×1 - 25 - - - 67 - 24 1. viii. 49. 3 Males of colour phase picata Estuary of Farah Rud, Seistan 4. iii. 49. 3 4×3 ---93-66-2426. iii. 49. 3 -22 - 90 - 63 - 25 3×2 Baqrabad, Seistan 11. iii. 49. 3 3×2 -23 -91 -64 -2515. iii. 49. 3 3×2 -22 -94 -68 -24Faizabad, Seistan 20. iii. 49. -20 - 89 - 60 - 25 subad. 4×2 3×2 -23 - 90 - 61 - 24 subad. 8 3 -22 -94 -67 5×3 -25-20 -94 -63 -2422. iii. 49. 3 4×2 -21 - 90 - 65 - 24 subad. 23. iii. 49. 3 5×3

Logar Valley, E Afghanistan

```
Obeh, W Afghanistan
        11. vii. 49. o
                         we. 23 wi. 93 tl. 63 tr. 25 male
        13. vii. 49. 3 \times 2 - 23 - 94 - - 24
        15. vii. 49. \sqrt[3]{1/2} \times \sqrt[1]{2} - 23 - 92 - 65 - 24 subad.
23 km. east of Qala Nau, N Afghanistan
       24. vii. 49. 3 \times 1 - 24 - - 67 - 25
Haibak, N Afghanistan
         2. viii. 49. 3 \times 1 \times 1 = 23 = 93 = 65 = 24
            Males of colour phase capistrata
Gusalek, Nuristan
       26. ii. 48. 3 \times 1 \times 1 = 25 = 93 = 65 = 24 subad.
       24. iii. 48. 3
                       3\times2
                              -22 - 89 - 60 - 24 subad.
Qala Nau, NW Afghanistan
                       2 \times 1 -25 - -68 -24
       24. vii. 49. 3
                       2 \times 1 - 24 - 93 - 70 - 24
                   3
Maimana, NW Afghanistan
       Tashkurghan, N Afghanistan
         1. viii. 49. 3 2 \times 1 -25 - -67 -25
Haibak, N Afghanistan
        2. viii. 49. \sqrt{3} \ 1^{1/2} \times 1 \ -21 \ -66 \ -25
                  ♂ 2×1 — 25 — — — 66 — 25
                       2 \times 1 - 24 - - - 65 - 24
Paigah Kotal, N Afghanistan
        4. viii. 49. \sqrt{3} 1 \times \frac{1}{2} — 21 — 91 — 63 — 24 subad.
Darra-i-Shikari, Central Afghanistan
       16. ix. 49. \sqrt[3]{1 \times 1/2} - 21 - 91 - 66 - 22 subad.
            Females of type B (cf. opistholeuca)
Faizabad, Badakhshan
       10. vii. 48. 9 \times 4 - 21 - 87 - 64 - 24
Maidan, E Afghanistan
        9. vi. 49. \bigcirc 3 -22 - 90 - 60 - 24
                      5 - 21 - 89 - 64 - 24
       19. vi. 49. ♀
                             -18 - 88 - 60 - 24
                   Q
                      6\times4
Bamian, Central Afghanistan
```

 $3 \times 2 - 20 - 87 - 60 - 23$

21. ix. 49. ♀

East of Qala Nau, NW Afghanistan

Females of type C (cf. capistrata)

Gusalek, Nuristan

19. iii. 48.
$$\bigcirc$$
 5×3 — 22 — 88 — 61 — 24 21. iii. 48. \bigcirc 7×5 — 22 — 91 — 65 — 24

Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$9. 7 \times 4 - 23 - 93 - 63 - 25$$

Oe. capistrata, Oe. picata, and Oe. opistholeuca are regarded by most of the modern authors as colour phases of a single species, Oe. picata. For discussion of this question see especially Ticehurst (1922 and 1927), Stresemann (1925), Grote (1942), Vaurie (1949), and Mayr & Stresemann (1950). Unfortunately I was never stationed in a region where two of the phases occurred together but I passed through several such regions, and I think that my observations support the polymorphic point of view, although I collected several intermediates which show that modifiers are more common than supposed by Mayr & Stresemann.



Fig. 27. Oenanthe picata. Left the colour phase "picata"; right "capistrata"; in the middle two intermediates (No. 2430: Haibak, N. Afghanistan, 2. viii. 49. – No. 2455: Paigah Kotal, Haibak, N. Afghanistan 4. viii. 49).

Intermediate males: In the picata male from July 24 the black throat patch extends a little down on the breast, and the caudal demarcation is not sharp as usually in picata. There is besides an increased amount of melanin in the feathers of the abdomen. Both these deviations from the normal indicate a variation in the direction of opistholeuca. This specimen was taken in northwestern Afghanistan between Qala Nau and Bala

there are many more white or partly white feathers, all within the cap area of capistrata. In three specimens from Haibak, Qala Nau and Paigah Kotal of this last phase there is an increasing amount of melanin in the cap feathers, strongest developed in the specimen from Paigah Kotal (see figure 27). One of the other intermediate specimens was taken in the same area as the above mentioned picata male from July 24, which was deviating in direction of opistholeuca.

	Type A ("picata")	Type B ("opistholeuca")	Type C ("capistrata")
Upper side of head and mantle	greyish brown	sooty black	earthly
Throat	dull black	sooty black	pale earthly
Breast	white with a pale earthly tinge	sooty black	pale earthly with no sharp contrast against the white belly
Belly	white	sooty black ± white	white

Table 1. Colour differences in the three types of female Oenanthe picata.

The series of *opistholeuca* males is very uniform. As to the white colour of the under parts it is restricted to not much more than the under tail coverts, only in a specimen from Gusalek and in one from Iskan does it extend to the lower belly.

Characters of the females: The colour variation in the females is very great. I find, however, three main types which I call A (cf. picata), B (cf. opistholeuca), and C (cf. capistrata). A description is given in table 1 and the types and two intermediate specimens are depicted in the plate. These three types are not quite comparable to the colour phases of the

but not between capistrata and opistholeuca, whereas in the females there seems to be one chain of intermediates with a uniform decrease of melanin from type B (opistholeuca) to type C (capistrata), and another one from type B (opistholeuca) to type A (picata) in which the decrease of melanin on the throat lags behind the decrease in the rest of the plumage.

There can be no doubt that the variation among the females is too pronounced to be classified as mere individual variation; a comparison with the polymorphism found in the males seems more reasonable although the frequency of intermediates is even higher than in the males. As to the geographical distribution of the three types and their relation to the three types of males little is known so far, but I may emphasize that all my specimens of type A were collected in western, and all three of type C in eastern Afghanistan.

Of the females listed as type A the three specimens from Seistan are typical of this colour phase, whereas the breeding bird from east of Qala Nau in fresh moulted plumage shows no distinct colour contrast between throat and breast which both are brownish with a faint pinkish tint on the lower parts. This female was taken in an area where all three colour phases of males occurred.

In the list of type B (opistholeuca) two of the three females from the Maidan Valley are alike, and one of them depicted on the plate as B. They were both together with opistholeuca males. The third female (no. 1806, see plate) from this valley is intermediate between B and A, and it was paired with a typical opistholeuca male which was also collected. Picata males occurred also in the valley but they were less numerous than opistholeuca. — A female collected on September 21 (no. 2733, see plate), a passage migrant from Bamian, is intermediate between type B and type C. Still nearer to type C (capistrata) is the breeding female from Faizabad in Badakhshan. In that area I saw only opistholeuca males but KOELZ collected capistrata not far west of Faizabad (VAURIE 1949, Am. Mus. Nov. 1425: 44).

Plumage and moult: The birds at the end of their first year can still be recognized as they retain remiges of the juvenile plumage. Some of the

Observations during the breeding season. Nuristan: I found no form of picata during the breeding season. When we crossed Hindukush over the Weran Kotal to Badakhshan and travelled down the Kokcha Valley, opistholeuca appeared below Parwara at an altitude of about 2200 m. It was rather common all the way to Jurm (1400 m.), especially on the last march from Iskan (1540 m.) on which I counted 19 males. On this day I saw also 4 picata males, the only ones I observed in Badakhshan. Opistholeuca also occurred at Faizabad and up the Warduj Valley to about Zebak (2400 m.). Along all the route in Badakhshan I counted 67 opistholeuca and 4 picata between July 5-14, 1948, giving a percentage of 94 for opistholeuca as against 6 for picata. The phase capistrata I did not observe in this region unless some of the 24 males with white crown and black mantle, that I identified in the field as pleschanka on this trip, may have been capistrata. I think, however, they were not. The habitat of opistholeuca in this area was mostly desolate, stony and boulder strewn slopes, but it also occurred at the border of cultivated fields.

Central Afghanistan: Meinertzhagen (Ibis 1938: 685) says: "In the Ghorband and Bamian Valleys picata was dominant, and capistrata in the minority. Opistholeuca was not seen north of Kabul", but I think his observations may concern mostly migrating birds, because when I passed through the Ghorband Valley on June 1–2 and 7, August 7, and September 5, 1949, I always found opistholeuca rather numerous and never saw a picata. On the other hand a single capistrata occurred on June 2 at an altitude of 2700 m., just east of the Shibar Kotal. West of this pass and through Darra-i-Shikari to Doab capistrata was the only form I observed with certainty.

Eastern Afghanistan: I made a trip from Kabul to Gardez and Saroti Kotal in May 1949 on which I saw two males of the colour phase *picata*. It was in the Logar Valley, 54 km. from Kabul. When on June 9 we drove up through the rather broad and partly cultivated Maidan Valley, which leads to the Unaï Kotal from the east, we saw both *picata* and *opistholeuca*. On the return journey on the 19th I therefore looked a little closer at the chats of this valley. First I made a four hours' excursion in the mountains around

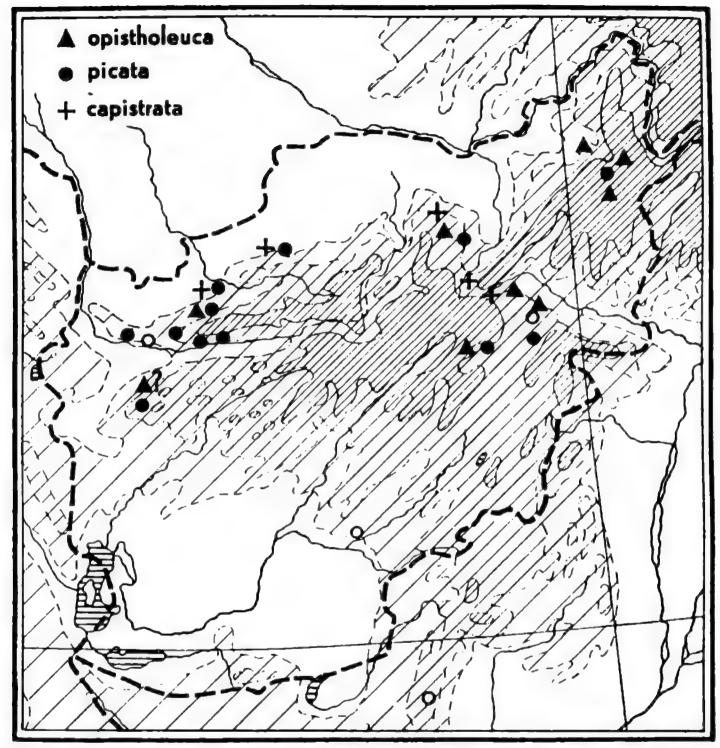


Fig. 28. Oenanthe picata. Distribution of the three colour phases of males observed during the breeding season.

specimens only observed in the field I was not able to establish any intermediate individuals. Of the three females collected, however, one was intermediate between the types A and B. It was paired with the typical opistholeuca male. The two other females were of type B and had also

the two phases. - West of the pass, between that and Panjao, we never observed the species.

Western Afghanistan: I did not find the species around Shin Dand, but when on July 1st we drove from this village to Herat and entered some foothills 25 km. north of Shin Dand, the phase picata appeared to be rather common. In a single case I believe I saw an opistholeuca too. — In the broad main Hari Rud Valley from Obeh in east to Islam Qala in west I saw none in July. In the side valley leading to the Ardewan Kotal, however, there were several picata on the 6th. During the stay at Obeh, July 11–17, I saw 3–4 pairs in the side valley at altitudes between 1600 and 2100 m. Finally I saw several on the slopes along the road from Obeh to about 30 km. west of Kwaja Chisht, and some in the valley south of the Sauzak Kotal on July 22. In the Hari Rud region east and west of Herat picata was the only phase observed.

Northern Afghanistan: When on July 22 we passed through the Sauzak Kotal into northern Afghanistan we found picata, and also opistholeuca, in a narrow valley southwest of Qala Nau. On the 24th the species was rather common on stony slopes before we reached a southern tributary of Murghab, and in the rocky canyon of this tributary down to Dahan-i-Kushak. Here we collected picata and opistholeuca of which two specimens, as stated above, were more or less intermediates. On the 27th in a rocky canyon near Maimana I saw two or three capistrata and a single picata. From Maimana through Andkhui to Mazar-i-Sharif I did not observe the species but when we entered the foothills at Tashkhurghan it appeared again, and I observed all three phases from there over Haibak to Paigah Kotal. My observations are too few to give the ratio between them, capistrata, however, was the dominating form.

In figure 28 is a key map of my observations as to the distribution of the three phases in Afghanistan.

Breeding: In the opistholeuca males from June and the beginning of July the testes were at or near their maximum size. In the migrating picata from Seistan they were of medium size, in those from May and June about maximum size, and in all from July they were already highly re-

Observations outside the breeding season: During our stay on the lower Farah Rud in Seistan in the early spring of 1949 we observed the passage migration, which consisted only of birds of the picata phase. The first male appeared on March 4, the next the 11th, but it was not until the 20th that it arrived in any number. On this last date we saw also the first females. In the following days only a few passed through and on the last day of the month we saw the last bird in Seistan. On April 3-4 we found a few along the road Farah-Girishk.

On December 14, 1947, and again on February 19–20, 1948, I saw some picata along the Kabul River between Jalalabad and Sarobi. In Nuristan, where I found none during the breeding season, a very slight passage migration was noticed from the end of February through March but all my observations are given with the specimens of capistrata and opistholeuca in the lists.

In the Bamian area I observed hardly any migration between September 6 and October 18. The *opistholeuca* female collected on September 21 and a similar seen on October 9 were the only ones observed. When on October 18th we returned through Ghorband all *opistholeuca* there seemed to have left the valley.

Saxicola barnesi Oates, Fauna Brit. Ind. Birds 2: 75 (1890 – restricted Kandahar) Kabul

Qala Nau, N Afghanistan

24. vii. 49.
$$3 \quad 2 \times 1 \quad -27 \quad -- \quad -25$$

 $3 \quad 1^{1}/_{3} \times 1 \quad -26 \quad -- \quad -- \quad -25$

Maimana, N Afghanistan

28. vii. 49.
$$3 \times 1 \times 1 - 26 - 89 - 60 - 26$$
 subad.
o $-25 - - 25$ male

Haibak, N Afghanistan

2. viii. 49.
$$3 \times 1 \times 1 = 26 = 90 = 61 = 25$$
 juv.

The three adult males from the end of July were heavily moulting. In the two young males the post juvenile moult had started.

(266). Oenanthe deserti - Desert Chat

- a. Oenanthe deserti atrogularis (Blyth)
- b. Oenanthe deserti oreophila Oberholser

a. Atrogularis males

Baqrabad, Seistan

28. ii. 49. we. — wi. 93 white area + + subad.

Estuary of Farah Rud, Seistan

Bagrabad, Seistan

15. iii. 49. -22 - 96 - + adult

18. iii. 49. -20 - 92 + adult

Faizabad, Seistan

20. iii. 49. -22 - 93 - + subad.

-21 - 90 - + adult

-20 - 96 - + adult

-20 - 98 - + adult

-19 - 91 - subad.-17 - 92 - subad.

- 18 - 89 - + adult

- 20 - 92 - + subad.

22. iii. 49. — 19 — 91 — + adult

-19 - 94 - + subad.

-20 - 94 - + subad.

23. iii. 49. - 17 - 95 - + adult - 17 - 96 - + adult

Estuary of Farah Rud, Seistan

24. iii. 49. -17 - 90 - + adult

-19 - 94 - + subad.

- ? - 96 - + subad.

Bamian, Central Afghanistan

1. x. 49. -20 - 94 - + adult

Darra-i-Shahidan, Central Afghanistan

13. x. 49. -21 -99 - + adult

b. Oreophila males

Panjao, C. Afghanistan

14. vi. 49. we. 19 wi. 94 white area +++ adult

Darra-i-Shahidan, Central Afghanistan

Atrogularis and oreophila females

Baqrabad, Seistan

12. iii. 49.
$$5\times 3$$
 we. 19 wi. 92
15. iii. 49. 6×4 — 18 — 89

Faizabad, Seistan

22. iii. 49.
$$4 \times 2$$
 — 16 — 91

23. iii. 49.
$$6 \times 3$$
 — 15 — 89

Bagrabad, Seistan

24. iii. 49.
$$3 \times 1^{1}/_{2}$$
 — 19 — 93

Estuary of Farah Rud, Seistan

24. iii. 49.
$$3 \times 2$$
 — 16 — 90

Faizabad, Seistan

25. iii. 49.
$$5 \times 3$$
 — 17 — 91

27. iii. 49.
$$4 \times 3$$
 — ? — 95

Darra-i-Shahidan, Central Afghanistan

13. x. 49.
$$1^{1}/_{2} \times 1$$
 — 17 — 95

None of the birds were moulting. The testes measured in the birds from February and March from $1 \times 1/2$ to 3×2 , in those from September and October about $1 \times 1/2$, and in the breeding bird from June 6×4 .

According to Vaurie (1949, Am. Mus. Nov. 1425: 36) it is possible to

Sinking, Tibet and Kashmir. VAURIE further found that the population of Afghanistan appears to be intermediate through a combination of these characters, namely with the long wing of *oreophila* and the small white area of *atrogularis*.

The only male I collected in Afghanistan during the breeding season, Panjao, June 14, is also intermediate but it has the short wing of atrogularis and the large white area of oreophila. As seen in the lists above the males collected outside of the breeding season represent clearly both subspecies, but some of the specimens are intermediate and could be placed in either of the two groups. Dr. Vaurie has kindly examined and compared a sample of my specimens and verified the identifications. It does not seem possible to separate the females of the two races.

Koelz was the first to collect the Desert Chat in Afghanistan during the breeding season (Vaurie 1. c.). On two occasions I presumably found it on its breeding grounds. The first time was on June 6 at an altitude of about 3100 m. in a valley east of Cham Kotal between Bamian and Band-i-Amir. Here several pairs appeared during and after a snow-squall, which seemed to force the chats down in the valley from the surrounding slopes and ridges. Further south in Hazarajat, above Panjao, I collected a male on June 14 which stayed on a stony area on a ridge at an altitude of 3000 m. It was the only one I saw there.

On the lower Farah Rud in Seistan we occasionally saw a few male Desert Chats during the first part of our stay (from February 25). These were presumably winter visitors in the region, but on March 20 the migration had started for we saw now many more birds than usual in the fields, and in the steppe around Baqrabad. The next day most of them had disappeared. On the 22nd their number increased again, and we saw the first female. The following days a varying number of males and females appeared but the height of the migration seemed to have passed and at the end of the month the migration was over. As shown in the list of specimens the race atrogularis was by far the most numerous.

The autumn migration as observed in the Bamian region was a little puzzling. During the first period from September 6-27 I saw none on ex-

area during the breeding season, and now found it rather numerous and constant during three excursions between September 28 and October 13, it is possible that the birds still present represented the males that had bred locally, whereas most of the adult females and the young birds had already left. If that was the case, the breeding population at high altitudes in Afghanistan is much nearer to *oreophila* than the scanty material previously at hand seemed to indicate. All the birds from this area had the wing measurements of *oreophila* and in 7 out of 10 specimens the white area was large as in this subspecies.

Down in the Bamian Valley itself I saw only the birds collected on October 6, 13 and 16, and one or two more on the 13th.

The extreme variation as to the amount of fat (and the weight) may indicate varying states of preparation for the migration. Two of the males from the Bamian Valley collected October 13 and 16, 1949, had practically no fat, they may therefore have been local birds from the surrounding mountains and not passage migrants.

(267). Oenanthe isabellina (Temminck and Laugier) – Isabelline Chat Synonym: Oenanthe isabellina kargasi Koelz, Proc. Biol. Soc. Wash. 52: 66 (1939 – Kargasi Pass)

25. ii. 49.
$$3 \times 1 = 2 \times 1 =$$

Faizabad, Seistan

31. iii. 49.
$$3 \times 2 - 28 - 98 - 55$$
18. iv. 49. $9 \times 5 \times 3 - 29 - 99 - 57$

Mukur, E Afghanistan

8. v. 49.
$$311 \times 7 - 26 - 97 - 58$$

 $2 - 30 - 89 - 51$

Gardez, E Afghanistan

24. v. 49.
$$3 \quad 12 \times 7 \quad -27 \quad -96 \quad -61$$

 $2 \quad 3 \times 2 \quad -23 \quad -- \quad -iuv.$

Diwal Kol, Central Afghanistan

Maimana, NW Afghanistan

28. vii. 49.
$$3 \times 1 \times 1$$
 we. 29 wi. 97 tl. 57 subad.

Tashkurghan, N Afghanistan

1. viii. 49.
$$3 \cdot 1^{1/2} \times 1 - 29 - (97) - 58$$

Darra-i-Shahidan, Central Afghanistan

6. x. 49. o
$$-39 - 104 - 59$$
 subad.
 $2 3 \times 2 - 25 - 95 - 53$
 $2 -39 - 97 - 53$

The British committee on the nomenclature of birds has shown that TEMMINCK and LAUGIER are the authors of *Oe. isabellina* (Ibis 1949: 511). VAURIE (1949, Am. Mus. Nov. 1425: 39) has examined the material on which *kargasi* was based and concluded that *kargasi* is not valid.

The adult and juvenile males from the end of July and August 1 have nearly completed their post nuptial and post juvenile moults, only a few body feathers are still growing. It is well known that there is a great colour difference between birds in fresh and worn plumage, but it is less well known that this change occurs rapidly. The birds from July in fresh plumage have a greyish red tinge which has already fully disappeared in the October specimens which are greyish brown as birds from the spring.

Southeastern Afghanistan: I found the Desert Chat most common during the breeding season in the broad valleys of eastern and southeastern Afghanistan: May 7-10 in the Tarnak Valley northeast of Kandahar, around Mukur and Ab-i-Istada and farther on to Kabul; and along the road from Kabul to Kandahar I found it to be numerous again when we returned on June 24-25. – On a trip from Kabul to Gardez on May 23-26 I did not see it through the comparatively fertile Logar Valley until we came into more desolate country between Hisarak and Tera Kotal. It was not present in the pass, but was met again south of it and farther on to Gardez and Usman Khel. – Around Kabul we saw it in the last part of May and in the beginning of June, and also along the road to Maidan, but not in this fertile valley itself. West of the Unaï Kotal it occurred in the most flat areas at an altitude of about 3000 m. At Panjao I never saw it, presumably because the country was too mountainous.

Northern Afghanistan: We saw a single bird on July 22 between Sauzak Kotal and Qala Nau, and a few in desolate valleys in the hilly country between Qala Nau, Bala Murghab, Maimana, and Andkhui on the 24th–28th. In the very dry steppe around this last town I saw only 2–3 birds and none on the drive from there to Mazar-i-Sharif. East of Mazar a few occurred both down in the steppe and on flat areas among the fotthills south of Tashkurghan and in valleys on both sides of the Paigah Kotal on August 4.

I found it as shown above at all altitudes up to 3000 m. It avoids mountainous country, however, and requires large flat and desolate areas, and only exceptionally does it occur at the border of cultivated fields.

During courtship flight it ascends 10–15 m. aslope with whirling wings, stops a moment, and then descends on stiff wings.

Outside the breeding season I saw very few birds. In Seistan the passage migration was very slight between February 25 and April 20, in fact I only observed with certainty the three specimens collected. In the autumn the main passage was presumably over when on September 6 we started our investigations at Bamian, for I saw only a few within a small, very desolate area at an altitude of about 2850 m. in the Shahidan Valley on October 5 and a single bird in the Shibar Kotal on the 18th.

(269). Turdus merula intermedius (Richmond) - Blackbird

Synonym: Turdus merula brodkorbi Koelz, Proc. Biol. Soc. Wash. 52: 67 (1939 — Farakar, Afghanistan)

04

--- 130 inv

Obeh, W Afghanistan

11. vii. 49.
$$\eth$$
 3×1 we. 102 wi. (131)
13. vii. 49. \eth 84 — 133 juv.
15. vii. 49. \eth 1 $^{1}/_{2}\times^{1}/_{8}$ 93 — 132 juv.
17. vii. 49. \eth 4×2 99 — 136
15. vii. 49. \updownarrow 8×4 89 — —

 \updownarrow 3×1 85 — 128 juv.
 \updownarrow 2×1 88 — 129 juv.
17. vii. 49. \updownarrow 6×4 92 — 129

Kwaja Chisht, W Afghanistan

altitudes between 1800 and 2300 m., and at Kwaja Chisht there were one or two families. I never saw or heard the Blackbird in Nuristan, where the subspecies maximus might have been expected.

(270). Turdus ruficollis atrogularis Jarocki – Black-throated Thrush Wama, Nuristan

11. iv. 48.
$$3$$
 4×3 we. 78 wi. 128
4. iv. 48. 9 9×4 — 96 — 130
11. iv. 48. 9 7×4 — 83 — 130

Bamian, Central Afghanistan

21. ix. 49.
$$3 \cdot 2^{1/2} \times 2 = 83 = 135$$

26. ix. 49. $9 = 72 = 130$

The Black-throated Thrush is a passage migrant and winter visitor to Afghanistan. In the spring of 1948 there was only a very slight migration through the Pech-Parun Valley in Nuristan. I saw two birds at Wama on April 4 and half a dozen on the 11th. – On February 22, 1949, there were a few in the hotel garden at Farah and in the autumn of the same year single birds appeared at Bamian on September 21 and 26, and October 12 and 15; on October 17 a few were seen.

(271). Turdus viscivorus bonapartei Cabanis - Missel Trush

Wama, Nuristan

14. iv. 48.
$$\circlearrowleft$$
 12×7 we. 107 wi. 170
3. iv. 48. \circlearrowleft 2¹/₂ — 118 — 161
14. iv. 48. \circlearrowleft 5 — 110 — 168

Pashki, Nuristan

9. vi. 48.
$$9.4 \times 1^{1/2}$$
 — 100 — 158 juv.

Sauzak, Kotal, W Afghanistan

22. vii. 49.
$$3 \times 5 \times 3 = 125 = (168)$$

I have not been able to compare these specimens with topotypical bonapartei but their grey upper parts and large wing measurements suggest they are typical representatives of this race.

The Missel Thrush is a rather scarce breeding bird in Afghanistan where

times in May and June. Here it occurred in coniferous forests of various kind from the bottom of the valley up to the tree limit at 3100 m., where it was most common. A fully fledged young was collected at 2600 m. on June 9 and one on July 25.

In the province of Herat I saw a few in low scrub in the middle of July at an altitude of about 2700 m. in the side valley at Obeh, and on the 22nd we saw some in the *Juniperus* scrub at 2500 m. in the Sauzak Kotal.

(272). Myiophoneus caeruleus turcestanicus Sarudny – Blue Whistling Thrush Gusalek, Nuristan, 3.–17. iii. 48.

Weight 33: 182, 184, 185, 187, 231 Wing 33: 179, 180, 181, 183, 193

Wama, Nuristan, 3.-30. iv. 48.

Weight ♂3: 180, 190, 196; ♀♀: 156, 211 Wing ♂3: 185, 191, 194; ♀♀: 173, 180

Pashki, Nuristan, 10. v.-7. vi. 48.

Weight ♂3: 176, 190, 200, 203; ♀: 162 Wing ♂3: 181, 185, 188, 191; ♀: 168

Stiewe, Nuristan, 16.-22. vi. 48.

Weight 33 ad.: 190; juv.: 159 Wing 3: 189

Obeh, W Afghanistan, 11.-15. vii. 49.

Weight 33 juv.: 184, 185, 187 Wing 33 juv.: 182, 183, 183

Darra-i-Shikari, Central Afghanistan

4. vi. 49. 3 17×10 we. 172 wi. 182

I have not been able to compare this series with material of turcestanicus from Turkestan, Tianshan and Buchara which is said to be generally duller and with a longer wing than temminckii from Himalayas. Gladkov (Dementiev & Gladkov 6: 478) gives a wing length of 189-200 mm. for males of turcestanicus against 158-180 in temminckii. In 14 adult males in the series above the wing is 179-194 (185,9), which is a little short for turcestanicus although best in agreement with this subspecies.

I found a nest with fully fledged young. The nest was built on a vertical rock wall facing north, 5-6 m. over the river. It contained at least 3 young, which two days later had left the nest. - At Wama the song was fully developed from the beginning of April. It consists of some very highpitched, shrill and loud fluted notes which are usually the only part of the song that can be heard above the roar of the river. At this time the birds very often pursue each other, singing at the same time. During the pursuit the colour of the birds changes all the time from dark, nearly black, to shining cobalt blue according to the position of the bird to the light. In the males collected the testes were now at their maximum size (from 12×7 to 15×10 mm.), and a female from the 30th was laying. It had a ripe egg in the oviduct and an inspection of the ovary revealed two calyces and two large follicles with diameters of 17 and 14 mm. The full clutch would therefore have consisted of 4 eggs. On May 5 a pair had begun the building of a nest on a little shelf in a cavity among boulders in a small torrent. -At Pashki I found it up to an altitude of 2900 m. In the males collected at this locality between May 10 and June 7 the testes were at their maximum size and vesiculae seminales much enlarged. – At Stiewe I saw the parents carrying food about the middle of June, and in the last week of the month young were in evidence. When we returned to Stiewe I saw on July 22 an adult with a young as high up as at 3100 m. - In Badakhshan I only observed it in the Kokcha Valley at Kachari on July 3 and between Parwara and Azasaid on the 5th.

Outside Nuristan and Badakhshan I saw a few in Darra-i-Shikari on June 2 and 4, August 7, and September 16; and 3–4 pairs bred between 1800 and 2100 m. in the side valley at Obeh, where they had fledged young by the middle of July.

During the winter I saw a single bird along the Kabul River east of Sarobi on February 19, 1948, and one on January 28, 1949, where the river enters the mountains east of Kabul. On a trip from Kabul to Kandahar on February 16–17, 1949, single birds were recorded at three localities.

In his review of the genus Myiophoneus Delacour (Auk 1942: 246) emphasises that the whistling thrushes by their general aspect, built and

(273). Enicurus scouleri Vigors - Little Forktail

Gusalek, Nuristan

27. ii. 48.
$$3 \times 1 \times 1 = 26$$
 (?) wi. 76
29. ii. 48. $3 \times 1 \times 1 = 16 = 79$
 $9 \times 5 \times 3 = 17 = 74$
 $9 \times 5 \times 2 = 15 = 75$
5. iii. 48. $9 \times 4 \times 2 = 13 = 72$

I found the Little Forktail, which had not previously been recorded from Afghanistan, to be a scarce breeding bird in Nuristan and Badakhshan. At the end of February and the first days of March there were a few along the Pech River at Gusalek but after the 5th they all disappeared. On April 6 I saw a single one again at some waterfalls in a mountain stream above Wama at an elevation of 1700 m. At the same place there was a pair when I revisited the stream on the 13th, and a little higher up I found a second pair. The 26th only one bird appeared at each locality, the other presumably occupied by incubation or laying. Several times I saw the birds disappear behind waterfalls where it was impossible for me to get in to look for nests. During the stay at Wama, March 31–May 5, we had our camp at the bank of Pech, but down there we saw a pair only on the last day. Farther up the valley the only record is that of a single bird between Chetras and Pashki on July 29.

In Badakhshan I saw one in a canyon near Kachari (2300 m.) in the Kokcha Valley on July 3, which was the only record from north of the main ridge.

I never saw the Little Forktail away from the rivers where it always lived near waterfalls or in the most turbulent parts of the streams. Walking about on slippery and often submerged rocks it jerked the tail a little up and down and closed and spread it at the same time, the white apical spots of the outer tail feathers acting as a flashing signal. The strongly curved and very pointed claws are well adopted for its life on rocks, but its plumage is remarkably thin for a bird living so much in contact with ice cold water.

The Spotted Forktail is also a new record for Afghanistan, where it is a scarce breeding bird in Nuristan. In all I saw only three pairs at three different localities. The first one I found near Gusalek on March 18 in a little side valley with steep slopes and with a boulder-filled stream bed which at that time did not carry much water. — On April 9 I found the next pair in the lower Atshenu Valley, a side valley to Pech just below Wama. In the male collected here, as in the female from Gusalek, the gonads were still rather undeveloped. The third pair I found at an altitude of 2400 m. above Pashki in a small side valley with a diminutive stream. A bird observed on May 18 was carrying nesting material. In the female shot here the 21st the follicles did not exceed 1 mm. in diameter, but the oviduct was rather much enlarged. — When this forktail rises it utters a not very loud but penetrating: tjeet.

(275). Turdoides caudatus huttoni (Blyth) – Common Babler Malacocercus Huttoni Blyth, Jour. Asiatic. Soc. 16: 476 (1847 – Kandahar)

Estuary of Farah Rud, Seistan, 2.-26. iii. 49.

Weight ♂: 47, 48; ♀♀: 41, 44, 44

Wing ♂: 87, 88, 89; ♀♀: 85, 86, 88

Tail 33: 112, 112, 125; \$\partial \text{: 120, 122}

Farah, SW Afghanistan

The two females from February 22, one male from March 9, and one of three females from March 26 are moulting some body feathers. The males had enlarged testes (from 11×5 to 13×7 mm.) which in one from March 24 were strongly injected. In one of the females from the 26th of the same month the sex organs were enlarged but still far from the maximum size.

The Common Babler occurs only in southern Afghanistan. On the lower Farah Rud in Seistan we found small parties of up to half a dozen birds at the end of February and throughout March in the tamarisk scrub in the estuary of the river. – In the hotel garden in Farah we saw a few small flocks during our visits in February and April and a party of 16–18 in-

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Wama, Nuristan, 6.-25. iv. 48.

Weight ♂♂: 38, 41, 42, 42, 43; ♀: 38

Wing ♂♂: 80, 80, 81, 82, 83; ♀: 79

Pashki, Nuristan, 20.-21. v. and 25. vii. 48.

Weight ♂♂ ad.: 38, 39; juv.: 41

Wing ♂♂ ad.: 81, 82; juv.: 82
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The males and the female from April were moulting the body feathers. In an immature male, collected on July 25 at Pashki, the breast and the upper parts are distinctly browner than in adults.

The specimens above, all from Nuristan, differ from three females from Ziarat in Baluchistan (ziaratensis) by having narrower shaft streaks and darker brownish, not so yellowish, edges of the breast feathers. In these ways the Nuristan birds agree with three specimens from Gilgit (subspecies gilgit) in which, however, the feather edges of the upper parts are slightly paler grey. The Gilgit specimens were collected 1876–79 so this difference may be due to the age of the skins.

I found the Streaked Laughing Thrush only in the Pech-Parun Valley in Nuristan. The first arrivals were observed on March the first at Gusalek. During the first half of the month they appeared in small parties, and thereafter in pairs. – At Wama it was also rather common but higher up the valley it was seldom seen. As Pashki I observed a few pairs in May and June. At Stiewe I never saw it.

North of the main Hindukush range, in Badakhshan, I did not find it, but Vaurie (1954, Am. Mus. Nov. 1669: 7) has examined a series from this province, and he refers it to the Turkestan subspecies bilkevitchi.

I always found it in various thickets from which it was very difficult to drive it out. It has many different call-notes some of which I tried to write down in the following ways:

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djü-djü and djü-djü-djü (almost whistling)
di-di-tüv
djüp, djüp
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(277). Garrulax variegatus nuristani subsp. nov. – Variegated Laughing Thrush

Pashki, Nuristan, 29. v.-6. vi. 48.

Weight ♂3: 64, 65, 67; ♀♀: 63, 64

Wing ♂3: 100, 103, 109; ♀♀: 100, 105

Stiewe, Nuristan

16. vi. 48. ♀ we. 63 wi. 97

Iris yellow-green. The male from May 29 was moulting the body feathers. The Variegated Laughing Thrush has not been recorded previously from Afghanistan where I found it breeding in the province of Nuristan. The species is distributed in Himalayas from Nepal (type locality of variegatus) in the east to Afghanistan in the west, and a cline runs from east to west in the decrease of the yellow and olive pigments. The Kashmir race, simile, resembles variegatus exactly, except that the grey portions of the primaries and tail feathers are pure French-grey, entirely untinged with yellow, olive, or orange (Hume). Compared with three specimens from Kashmir, the Nuristan series is distinctly greyer than simile as the sides of the neck and the whole upper plumage are dark grey with a varying amount of olive-brown tinge. Further, the ashy-brown crown and nape are a little

Garrulax variegatus nuristani subsp. nov.

Type: No. 621 ♂ ad. Pashki, at 2500 m., middle Parun Valley, Nuristan, May 29, 1948.

darker in the Nuristan birds. As the population of Nuristan is the end of a

cline I find it convenient to have a name for it whereas I propose

I did not observe the Variegated Laughing Thrush until May 29 at Pashki. I think the bird must arrive rather late as its voice is very characteristic, and as I had not noticed it before during all the spring. After the 29th I heard and saw it on several occasions above Pashki and Stiewe. It prefers to hide in scrub but, contrary to *lineatus*, it may perch in trees. It occurred up to an altitude of about 3000 m.

In this species also the voice is very variable. The most characteristic notes may be recorded as hütje-'gütje and pa'tuje.

In the males collected May 29–June 3 the testes (from 6×4 to 7×4 mm.)

b. Estuary of Farah Rud, Seistan

Faizabad, Seistan

13. iv. 49. o
$$-7 - 61$$

17. iv. 49. o $-6 - 56 (9)$

Farah, SW Afghanistan

3. iv. 49.
$$3 \quad 1 \times \frac{1}{2} \quad -8 \quad -65$$

 $4 \times 1^{\frac{1}{2}} \quad -7 \quad -57$
 $1^{\frac{1}{2}} \times 1 \quad -5 \quad -55$

Bamian, Central Afghanistan, 16. ix.-12. x. 49.

Weight 9
$$33$$
: 7-9 (7,6); 4 99 : 6-7 (6,3)
Wing 9 33 : 61-65 (62,1); 4 99 : 55-58 (56,0)

In the specimens from Gusalek in Nuristan the upper parts are darker than in the specimens from Seistan collected at the same time of the year, and they show no, or virtually no, greenish tinge. In this respect they agree with a series of *tristis* from the Jelogin river east of the Yenisei, whereas the Seistan specimens and those from Bamian agree with series of *fulvescens* from western Siberia in professor Johansen's collection. For the validity of these two races see Johansen 1947 and 1954. I have not been able to compare the Nuristan birds with *sindianus* but owing to the long second primary, the wing length, and the bright yellow under wing and axillaries I believe they cannot belong to this subspecies.

In the spring of 1948 I found the Chiffchaff a very scarce passage migrant in the Pech-Parun Valley in Nuristan. On March 15 and 24 I saw a few at Gusalek and on April 9 two warblers at Wama which I presume also belonged to this species.

In the spring of 1949 we observed a few between the end of February and the beginning of April along the lower Farah Rud in Seistan. In the first week of April it was rather numerous in the hotel garden in Farah.

In the autumn of 1949 the Chiffchaff was on passage in the Bamian area from the middle of September to the middle of October. On most days I saw from a few up to about a dozen; anything like a mass migration was never observed.

(279). Phylloscopus neglectus Hume – Plain Brown Willow-Warbler

We found this warbler first in Seistan where Madsen saw one on April 17 in a low tamarisk bush in the fields of Baqrabad. It may breed in Seistan as it does in Iranian Baluchistan and in northern Baluchistan proper, but we saw this single specimen only.

In the middle of July I found a few in scrub at altitudes between 2300 and 2800 m. in the side valley above Obeh east of Herat, and on July 22 I collected one in the *Juniperus* scrub at 2500 m. in the Sauzak Kotal. These birds were moulting and silent so I never got the opportunity to learn if the voice resembles that of the chiffchaff.

(280). *Phylloscopus tytleri* Brooks – Tytler's Willow Warbler Pashki, Nuristan

23. v. 48.
$$\vec{0}$$
 7×5 we. 7 wi. 57 tl. 38 5. vi. 48. $\vec{0}$ 10×6 — 8 — 61 — 41

Bill dark horn, basis of lower mandible a little lighter. Tarsi and toes dark horn brown.

Although no authority seems to exist for the statement by BAKER (2: 456) that tytleri breeds in Afghanistan, it really does so, because I found it a scarce breeding bird at Pashki in the Parun Valley, Nuristan. I saw the first few birds on May 23 and 24 in a glade at an elevation of 2600 m. They were in pairs and were searching for food in tall Pinus exelca as well as down in the scrub. The male collected had enlarged testes and vesiculae seminales. The fat tissues were well developed. On June 5 I observed two, presumably a pair, which very tenaciously kept to the same place on a slope with Abies and scrub at an altitude of 2550 m. In the male, which was collected, the testes were at their maximum size and the vesiculae were much enlarged.

The voice I have written down as 'tji-jeep, 'tji-jeep and vitjip-vitjip.

(281). Phylloscopus griseolus Blyth – Olivaceous Willow Warbler Wama, Nuristan

22. iv. 48. $\stackrel{4}{\circ}$ 2×2 we. 9 wi. 67

Tarsi and toes light horn brown. Bill dark horn brown, lower mandible paler.

I found the Olivaceous Willow Warbler only in Nuristan and Badakhshan in northeastern Afghanistan. At Wama in central Nuristan I noticed a few individuals, on April 22, on a mountain slope with boulders and almond scrub. – At Pashki I found it at its breeding grounds at elevations of 2800–3000 m. The habitats were steep boulder strewn mountain slopes with scattered vegetation of *Viburnum*, *Rosa* etc. The female collected on May 24 had an egg without shell in the oviduct. – At Stiewe I found it twice only. In the males collected here on June 17 the testes were injected and at their maximum size and the *vesiculae seminales* were much enlarged. In Badakhshan I found it rather common among the stone heaps and rose scrub around the fields at Miyan Deh (2550 m.) in the Kokcha Valley. I saw it also at several localities between Zebak, Sanglich and Maghnaol.

The call note I heard as *tjit-tjit-tjit*. It might also have two or four syllables. The song may be transcripted as *ta-viaviavia* or *ta-vievievie*.

(283). Phylloscopus inornatus humei (Brooks) – Hume's Willow Warbler (Yellow-browed Willow Warbler)

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Wama, Nuristan, 14. iv.-2. v. 48.
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Weight 33: 6, 6

Wing 33: 54, 57, 57, 59; sex ?: 55

Pashki, Nuristan, 11.-23. v. 48.

Weight 33: 5, 6, 6; ♀: 6

Wing ♂3: 56, 58, 62; ♀: 55

Tilli, Badakhshan, 18.-19. vii. 48.

Weight QQ ad.: 6; juv.: 5

Wing 99 ad.: 55; juv.: 54

Bamain, Central Afghanistan, 22. ix.-3. x. 49.

Weight 3: 6; sex.?: 5, 6, 6

Wing 3: 56; sex.?: 53, 55, 56.

Comparison of this series with breeding specimens of humei and nominate inornatus from West Siberia in professor Johansen's collections shows that these Afghan birds are distinct from nominate inornatus, and agree with

- The peak of passage at Pashki seemed to be on May 13-14. Later I saw a few only, the last one, a female with an undeveloped ovary, on the 23rd.

In Badakhshan it bred in the scrub (Figure 9) along the Kokcha River at Tilli (2700 m.) where I collected a female and a juvenal on July 18.

In the autumn of 1949 a slight passage was observed from about September 22 to the middle of October at Bamian, Aq Ribat, and Bandi-Amir.

(284). Phylloscopus subviridis (Brooks) – Brooks's Willow Warbler Wama, Nuristan, 12.–24. iv. 48.

Weight ♂3: 5, 5; Q: 5

Wing ♂♂: 54, 56; ♀: 53

Pashki, Nuristan, 9. v.-3. vi. and 24. vii. 48.

Weight 33: 5, 5, 5, 6; ♀: 5

Wing ♂3: 55, 56, 57, 57, 58; ♀: 53

A male collected on July 24 is in postnuptial moult.

Subviridis is believed by some authors to be conspecific with *inornatus*. My scanty field observations threw no light on this problem. The specimens collected, however, are pure subviridis and show no transition to *inornatus*.

I found Brooks's Willow Warbler only in Nuristan. I saw a few warblers in the oak forest on March 23 which presumably belonged to this species. — At Wama I recorded it on several days in April. In the specimens collected there the gonads were still rather small (in males about 3×2 mm.), the oviduct in the female from the 17th, however, slightly enlarged. — Around Pashki it was a scarce breeding bird. In the males from the last third of May the testes were at their maximum size (5×4 and 6×5 mm.) as were the oviducts in two females from May 26 (not skinned) and June 3. The habitat was open parts of the *Abies* and *Picea* forests up to an elevation of about 2800 m.

(285). Phylloscopus trochiloides – Greenish Willow Warbler

- a. Phylloscopus trochiloides viridanus Blyth
- b. Phylloscopus trochiloides ludlowi Whistler
- a. Wama and Pashki, Nuristan, 28. iv.-3. vi. 48.

Tarsi and toes dark horn brown. Bill also dark horn brown, lower mandible, however, horn yellow with dark tip. In a few specimens the base of the mandible was paler, in one with a faint rosy tinge. These specimens had the largest testes, so presumably a colour change follows the development of the testes.

Compared with specimens from western Siberia the upper parts in the series "a", collected during the migration in Nuristan, are a darker olive green, the yellow tinge of the under parts is more olive yellow, the tarsi and toes are darker, and the dark tip of the lower mandible is larger. There are thus some differences between this series and *viridanus*. On the other hand, it cannot belong to *sushkini* (SNIGIREWSKI, Jour. Orn. 1931: 61 – Miass, southern Urals), which was described as less yellow below than *viridanus*. Besides, *sushkini* is not recognized by either the "Birds of the Soviet Union" (6: 78) or by TICEHURST (1938: 140). Until more material is available from the countries north of Afghanistan it seems better to refer the series to *viridanus*.

Among the series of Greenish Willow Warbler there are some specimens with conspicuously large wings. Dr. Vaurie has had the kindness to compare these with the material in the American Museum, and he found that the series "b" can safely be called *ludlowi* which is a not perfectly constant form, intermediate between *viridanus* and nominate *trochiloides*.

During the spring of 1948 I saw the first migrants at Wama in Nuristan on April 28. The largest wave of migrants came through the Pech-Parun Valley about the middle of May at which time we camped at Pashki, but I saw a few birds there as late as June 5. Although the testes in two males from May 30 were injected and measured 5×3 and 6×4 I think all the birds observed in Nuristan were passage migrants. In all the females collected the gonads were inactive.

I found it in scrub down in the main valley as well as in glades high up in the coniferous forests.

In the Weran Valley just north of the main Hindukush range I collected an adult female on July 20 at an elevation of 3350 m. which belongs to the subspecies *ludlowi*. A few more individuals were seen in the valley where they inhabited small patches of willow scrub. In the ovary of the female

(287). Phylloscopus occipitalis (Blyth) - Large Crowned Willow Warbler

Synonym: *Phylloscopus occipitalis kail* Koelz, Proc. Biol. Soc. Washington **52**: 71 (1939 – Kail, about 70 km. NNE of Kabul)

Wama and Pashki, Nuristan, 28. iv.-9. vi. 48.

Weight 8 ♂♂: 8–9 (8,5); 5 ♀♀: 8–9 (8,4)

Wing 8 33:65-70(67,9); 5 99:60-65(62,8)

Pashki, Nuristan

24. vii. 48. ♂? we. 8 wi. 62 (♀)

This series shows considerable variation in the colourations of the upper parts. In three specimens they are a purer olive green, while in the rest they are more greyish olive. The subspecies *kail*, which was described on material collected just west of Nuristan, was based on worn and faded specimens of the greyish type. Dr. Vaurie has had the kindness to compare my series with the type and paratypes of *kail*, and he found that there is no doubt that *kail* is a synonym of *occipitalis*.

The Large Crowned Willow Warbler was seen only in Nuristan. It arrived at Wama on April 24, and from then on its call note was heard all over in the oak forest until we left on May 6. Whether any remains there to breed I do not know. – At Pashki it was one of the most numerous breeding birds, which lived both in the hazel and willow scrub in the bottom of the valley as well as in the more open parts of the various coniferous forests up to the upper tree limits. – During the last half of June I found it also a few times in scrub in the valley at Stiewe.

Its call note is a characteristic *chit-chit*, which may also consist of four or two syllables and vary in loudness and pitch.

The testes were already enlarged (6×4) in a bird collected on April 28, but the maximum size (7×5) was not reached until the last week of May at which time protruding *vesiculae seminales* were also noticed. In three females collected on May 14 and June 3 the sex organs were only slightly enlarged, but in one from June 9 the oviduct was at its maximum size, and the largest follicle measured 2 mm. in diameter and was more yellow than the smaller ones. These observations probably show that the breeding season does not start until the beginning of June. At this time I observed also

I have not been able to compare these specimens with material of himalayensis but their upper parts and the sides of the head are more greyish than in nominate regulus. According to the description these characters separate himalayensis from the nominate race.

The Himalayan Goldcrest has not been collected hitherto in Afghanistan, but it was known from the Safed Koh just outside the eastern border. I saw only the three specimens collected which are all from the vicinity of Pashki in Nuristan where they were taken in coniferous forest at altitudes between 2600 and 2700 m. The male from June 5 had large injected testes, and the female from the 10th was laying.

(289). Cettia cetti albiventris Severtzov – Cetti's Bush Warbler Panjao, Central Afghanistan

Obeh, W Afghanistan

12. vii. 49.
$$\vec{\sigma}$$
 $\frac{1}{2} \times \frac{1}{2}$ — 15 — 68
15. vii. 49. $\vec{\sigma}$ $\frac{1}{2} \times \frac{1}{2}$ — 15 — 67
12. vii. 49. $\vec{\varphi}$ $2 \times \frac{1}{2}$ — 12 — 60 juv.

According to Vaurie (1954, Am. Mus. Nov. 1691: 7) Cetti's Bush Warbler is a breeding bird in Afghan Turkestan and Badakhshan north of the Hindukush range. I found it at two localities south of the main range, namely at Panjao in central Hazarajat and at Obeh east of Herat, but I never saw it or heard its characteristic voice elsewhere in Afghanistan. At Obeh it was rather common at altitudes between 1800 and 2400 m. in the scrub clad bottom of the side valley. The gonads of the birds collected were in inactive stage.

(291). Locustella naevia straminea Seebohm – Grasshopper Warbler

Wama, Nuristan

2. v. 48.
$$\bigcirc$$
 4×3 we. — wi. 56 tl. 49

Bamian, Central Afghanistan

The Eastern Grasshopper Warbler is known only as a passage migrant in Afghanistan. In the spring of 1948 I saw in Nuristan only the specimen that was collected. In the autumn of 1949 there were a few on passage at Bamian on September 20 and 24.

(294). Acrocephalus stentoreus brunnescens (Jerdon) – Indian Great Reed Warbler

Shin Dand, W Afghanistan, 28.-30. vi. 49.

Herat, W Afghanistan

5. vii. 49. 3 9×5 we. 28 wi. 85

Farah, SW Afghanistan

28. iv. 49. $3 \times 5 \times 3 = 25 = 84$ 30. iv. 49. $3 \times 5 \times 3 = 24 = 85$

Bamian, Central Afghanistan

21. ix. 49. \bigcirc 2¹/₂×1¹/₂ — 21 — 84 8. x. 49. \bigcirc 5×2¹/₂ — 24 — (81)

The Indian Great Reed Warbler is a passage migrant and breeding bird in Afghanistan where it breeds presumably in most parts of the country. In southern Afghanistan I heard its song on June 26 from some scrub along the river west of Kandahar and on May 4 and 5 along the Helmand river at Lashkari-Bazar. — In western Afghanistan it was rather common and singing eagerly in the last days of April and the first days of May along the river at Farah. In late June I found it very numerous around Shin Dand, especially in some small *Typha* beds. At Herat I saw a few in the first week of July. — In central Afghanistan I heard it in the middle of June at Panjao. — In northern Afghanistan it was very numerous in the extensive reed beds at Chashma-i-Sher when on August 5 we visited this locality on the Danaghori Plains.

(295). Acrocephalus scirpaceus fuscus (Hemprich & Ehrenberg) – Reed Warbler

(296). Acrocephalus dumetorum Blyth - Blyth's Reed Warbler

Pashki, Nuristan

Gardez, E Afghanistan

24. v. 49.
$$3 \times 2 - 12 - 64 - 52$$

Obeh, W Afghanistan

12. vii. 49. o
$$-8 - 63 - 52$$

E of Mazar-i-Sharif, N Afghanistan

1. viii. 49.
$$\vec{a}$$
 $1 \times \frac{1}{2}$ — 10 — 62 — 49

Bamian, Central Afghanistan, 9.-27. ix. 49.

Weight 33: 11, 11, 11; sex ?: 11, 11

Wing 33: 62, 63, 64; sex ?: 61, 62

Tail 33: 50, 51, 53; sex ?: 51, 53

The specimen from Pashki in Nuristan was collected on May 25 in scrub on a mountain slope. It was the only one I saw in Nuristan. – At Gardez in eastern Afghanistan there were a few on May 24 in scrub around the fields near the town. – At Obeh in western Afghanistan I saw and collected a single one on July 12 in the same bush vegetation where I also collected *Phylloscopus neglectus*. Observation of these birds and the examination of their sex organs (which in two of the birds were quite destroyed by the shot) did not show whether the birds from all these localities were breeding or not. I believe, however, that the dates suggest very much that the birds were on their breeding grounds.

In the autumn of 1949 a few A. dumetorum and A. agricola were seen on several days between September 8 and October 13. The status of the birds is not clear; I think, however, that some migration took place as there was a slight increase in their number for some days about the middle of September. Nothing can be said about the ratio of the two species except the information given by the specimens collected.

(297). Acrocephalus agricola (Jerdon) – Paddy-Field Warbler Faizabad, Seistan

16. iv. 49. $3 \times 4 \times 2$ we. 10 wi. 56 tl. 52

were seen on April 16 near Faizabad on the lower Farah Rud in Seistan. The observations at Bamian in the autumn of 1949 are mentioned under *A. dumetorum*.

(299). Hippolais languida (Hemprich & Ehrenberg) – Upcher's Warbler Paigah Kotal, east of Haibak, N Afghanistan

4. viii. 49.
$$3 \times 1 \times 1$$
 we. 13 wi. 78 o -13×74

The male is an adult in badly worn plumage. The unsexed bird is a juvenal.

I found Upcher's Warbler only in the Paigah Kotal where we saw several individuals in the pistachio scrub in the pass. Presumably, they were on their breeding grounds.

(301). Hippolais caligata rama Sykes – Sykes's Tree Warbler Faizabad, Seistan, 9.–20. iv. 49.

Weight 39 33: 8-10¹/₂ (8,9); 99: 7, 8, 8¹/₂ Wing 39 33: 59-66 (61,9); 99: 55, 59, 60

Tail 38 ♂3: 46–54 (51,1); ♀♀: 47, 49, 50

Difference between 1. primary and primary coverts: 43 33 & 99: 4-12 (7,8)

Length of 2. primary:

Sex organs: 33 from 1×1 to 2×3 ; 99 undeveloped.

Farah, SW Afghanistan

30. iv. 49. \bigcirc $4\times2^1/_2$ we. 9 wi. 58 wi. form. 6>2>7 1. pr.-cov. 8 tl. 50 Lashkari-Bazar, S Afghanistan

4. v. 49. $3 \times 4 \times 3 = 8 - 60 = 2 = 7 = 5 - 49$

Ab-i-Istada, E Afghanistan

Obeh, W Afghanistan				
20. vii. 49. ♀ 3×2	we 9 wi. 58 w	i. forw. $7 > 2$	2 >8 1. prco	v. 8 tl. 47
Kwaja Chisht, W Afghanistan				
19. vii. 49. 9.3×2	-8 - 59	_ 2	8 –	7 — 49
Bala Murghab, N Afghanistan				
24. vii. 49. $\sqrt[3]{1/2} \times 1/2$	11 61	- :		8 47
Mazar-i-Sharif, N Afghanistan				
1. viii. 49. o	— 9 — 62	_ 2=	· 7	7 - 50
Haibak, N Afghanistan				
4. viii. 49. $\sqrt[3]{1} \times 1/2$	— 9 — 60	- :	-	8 45
Bamian, Central Afghanistan				
7. ix. 49. $3^{-1/2} \times 1/2$	— 7 — 60	-6 > 2	2 > 7 —	8 — 48
♂ ¹/2×¹/2	-9 - 61	6 >2	? >7 —	7 — 48
20. ix. 49. $3 \cdot 1 \times 1/2$	-10 - 63	-6 > 1		6 - 47
6. ix. 49. o	-8-60	_ :		6 - 45
8. ix. 49. o	-7-60	- 7 > 2		7 — 47
12. ix. 49. \circ 2×1	-7-58	-6 > 2	2 >7 —	7 — 47

In all my specimens from Afghanistan the upper parts are greyer, less brownish, than in 10 breeding males of nominate caligata from western Siberia. I therefore refer all the Afghan birds to rama although some specimens have a wing formula (6>2>7) which is said to be characteristic of nominate caligata. In other respects, such as colour and length of tail and first primary, the specimens with this wing formula agree completely with the other specimens in the Afghan series. The wing formula of this series varies a great deal as shown in the list.

Migration: During the spring of 1949 I observed the first migrants on April 9 on the lower Farah Rud in Seistan. The migration was still going on when we left on the 21st. The specimens collected show that the males were highly dominant during this part of the migration. In all 39 males were taken against 3 females, which were collected on April 18–20. The height of the migration seemed to fall about the middle of the month but the passage continued still in the beginning of May for on the 9th I observed two individuals on a small island in Ab-i-Istada in eastern Afghanistan where the habitat was not suitable for breeding. Besides, the

June 27 there were still a few present and one was carrying nesting material. – In July I found it at several localities between Tirpul and Kwaja Chisht in the main Hari Rud Valley where it inhabited open tamarisk and willow scrub. Family parties were seen on July 9. – In northern Afghanistan I saw it at Qala Nau, Bala Murghab, Mazar-i-Sharif and Haibak between July 27 and August 3.

(302). Sylvia nisoria merzbacheri Schalow - Barred Warbler

AITCHISON and MEINERTZHAGEN collected each a single Barred Warbler in Afghanistan on May 7 and 14, but it is not known whether these birds were on their breeding grounds or they were migrants. I saw a single one on May 17 in a willow scrub near Pashki in Nuristan. It was presumably a migrant, for I visited the same scrub several times without seeing more than this single bird.

(303). Sylvia hortensis jerdoni (Blyth) - Orphean Warbler Obeh, W Afghanistan

In the middle of July I found the Orphean Warbler to be rather common up to an altitude of about 2400 m. in the scrub clad side valley at Obeh, east of Herat. It was the only locality in Afghanistan where I saw the species.

The badly worn plumage of the two adults does not permit subspecific discrimination. Vaurie (1954, Am. Mus. Nov. 1692: 1) has recently shown that the breeding birds from Iranian Baluchistan and eastern Afghanistan (jerdoni) differ from the populations of Transcaspia and Iran proper (balchanica). In jerdoni the cap is almost pure black and the upper parts are distinctly purer grey than in crassirostris and balchanica. According to Vaurie crassirostris is restricted to the Balkan Peninsula, Cyrenaica, Sudan, Asia Minor, and the Near East. The populations of northwestern

These specimens are typical representatives of the grey subspecies, icterops.

A few Whitethroats occurred on passage in the Bamian region between September 6 and 19. I found most of them in poplar groves along the river at an altitude of 2600 m. but some were seen above 3100 m. in a valley without any scrub. Here they ran on the earth or perched on boulders.

This is the first record published of the Whitethroat for Afghanistan where it is only a bird of passage, presumably on its way to the winter quarters in India. TICEHURST (Ibis 1922: 558) found it to be a fairly common passage migrant in Sind from the beginning of September to the beginning of October. The migrants observed there, may most likely have passed through Afghanistan although they have not been noticed there previously.

(305). Sylvia curruca - Lesser Whitethroat

- a. Sylvia curruca blythi Ticehurst & Whistler
- b. Sylvia curruca halimodendri Sushkin
- a. Faizabad, Seistan, 8.-20. iv. 49.

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Weight 33: 10, 10, 10^{1}/_{2}; 9: 12; sex 7: 9, 10^{1}/_{2}
Wing 33: 61, 62, 64; 9: 64; sex 7: 60, 63
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Bamian, Central Afghanistan, 9. ix.-14. x. 49

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Weight 7 ♂♂: 10–13 (11,4); 8 ♀♀: 10–12 (10,9)
8 sex ?: 10–13 (11,5)
Wing 7 ♂♂: 62–67 (64,7); 8 ♀♀: 63–65 (63,9)
8 sex ?: 63–66 (64,8)
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b. Faizabad and Baqrabad, Seistan, 8. iii.-20. iv. 49.

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Weight 13 33: 9^{1}/_{2}-12 (10,9); 9 99: 9^{1}/_{2}-11 (10,0); sex ?: 9, 10
Wing 15 33: 60-67 (63,7); 9 99: 57-63 (61,0); sex ?: 61, 62, 64
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In the specimens collected in Seistan during the spring migration the upper parts show a continuous variation from a greyish to a more brownish tone. Six of the most brown specimens compare well with specimens of blythi from western Siberia. All the other birds I refer to the more southern subspecies halimodendri. In four blythi the wing formula is 6>2>7, in one 7>2>8, and in one it is uncertain. In the greyer birds, halimodendri, two specimens have the formula 5>2>6, sixteen 6>2>7, six 6>2=7 and two 7>2>8.

During the spring migration of 1949 I saw on March 8 the first few Lesser Whitethroats on the lower Farah Rud in Seistan. Their number remained rather constant and low during the following period, but on the 26th there was a pronounced passage, and on the 30th a smaller one. Thereupon a few birds were seen again almost daily until we left on April 20. I saw also several individuals during a visit to Farah on April 6 and single ones at Dilaram, April 4, and Farah, May 2.

The size of the testes in the spring migrants varied from $1^1/2 \times 1$ to 4×3 . The last mentioned size was measured in two birds from March 26 and 30. In all the females the sex organs were undeveloped.

During the autumn of 1949 at Bamian we saw from a few up to about a dozen individuals on most days during our stay there (September 6 to October 17). A mass migration was never observed, but it was most numerous on September 18 and 21.

In the breeding season I did not find any Lesser Whitethroat in Afghanistan where it is replaced by *Sylvia althaea* which, however, must be considered to be a separate species (VAURIE, 1954, Am. Mus. Nov. 1692: 9).

(307). Sylvia althaea althaea Hume – Hume's Whitethroat Pashki, Nuristan

5. vi. 48.
$$3 \cdot 10 \times 6$$
 we. 13 wi. 70

Stiewe, Nuristan

19. vi. 48.
$$3$$
 9×6 — 13 — 65
24. vi. 48. 3 9×6 — 13 — 69

Tilli, Badakhshan

19. vii. 48.
$$\stackrel{?}{\circ}$$
 3×2 - 13 - 71 $\stackrel{?}{\circ}$ 3×2 - 15 - 71

Kachari, Badakhshan

Obeh, W Afghanistan

12. vii. 49.
$$3 \times 2 = 13 = 69$$

15. vii. 49. $3 \times 2 = 16$ juv.

Panjao, Central Afghanistan, 12.-15. vi. 49.

Weight 6.22:13-15.(14.3)

In Badakhshan I found it in July at many localities in the Kokcha and Sanglich valleys at altitudes between 1550 and 2750 m.

In Hazarajat I heard it on June 11, 1949, at Diwal Kol, and in the middle of June I found it to be numerous in willow scrub along the river at Panjao. In the middle of July I saw it several times up to an altitude of 2400 m. in the side valley at Obeh, east of Herat. – In northwestern Afghanistan I saw one on July 23 in the hotel garden in Qala Nau.

In the birds collected in June the testes were at their maximum size (from 8×5 to 10×6) and injected. Vesiculae seminales were also large. The song is unmistakably like that of S. curruca including the characteristic rattle.

(308). Sylvia nana nana (Hemprich & Ehrenberg) – Desert Warbler Baqrabad, Faizabad, and Estuary of Farah Rud, Seistan, 6. iii.-9. iv. 49.

Weight 12 ♂♂: 7–10,5 (8,8); ♀♀: 7, 9 Wing 15 ♂♂: 56–60 (58,0); ♀♀: 56, 58

Sex organs, testes $1/2 \times 1/2$ to $2 \times 1^{1}/2$. In the females undeveloped.

Bamian, Central Afghanistan

26. ix, 49.
$$\sqrt{3}$$
 $\frac{1}{2} \times \frac{1}{2}$ we. 8 wi. 58 6. x. 49. o $-8 - 56$

This series shows some variation in the colouration of the upper parts. Some specimens are more brownish, while others are more greyish, but I am not able to decide whether this difference is geographical or individual.

The Desert Warbler is not known to breed in Afghanistan although it inhabits the countries both to the north, west and south. Only three previous records are known from Afghanistan, and they are probably all of migrants, as are my own observations.

At the lower Farah Rud in Seistan we observed some migration between March 6 and April 9 with a peak on March 21. Not until March 27 did we secure a female, however, after having collected 11 males during the earlier part of the migration which probably shows that the males migrate ahead of the females. We found most of the birds in open tamarisk scrub along the river or between the cultivated fields and in *Salicornia* vegetation in the steppe. The gonads in both males and females were undeveloped.

(310). Scotocerca inquieta platyura Severtzov – Streaked Scrub Warbler

Obeh, W Afghanistan

15. vii. 49.
$$3 \times 1 = 2 \times 1 = 8 = 49$$

 $2 \times 1 = 8 = 49$

These two specimens, presumably a pair, were collected at an altitude of 2300 m., and they represent all that I saw of this species. They were together in scattered scrub on a mountain slope.

I have not be able to compare them with material of *platyura* (type locality, Transcaspia), besides they are so badly worn that a comparison would be of little value. According to Vaurie (1955, Am. Mus. Nov. 1753: 13) *platyura* inhabits Paropamisus, the region north of Hindukush, and perhaps Seistan, while *striata* (type locality, Punjab) inhabits Afghanistan south of the Hindukush. As Obeh, east of Herat, is in the Paropamisus range I refer the specimens to *platyura* on geographical grounds.

(311). Prinia gracilis lepida Blyth – Streaked Wren Warbler Farah, SW Afghanistan

1. v. 49.
$$\bigcirc$$
 3×3 we. 6 wi. 42

The Streaked Wren Warbler I saw only at Farah where a few inhabited the hotel garden and areas with high grass along the river. It was seen here on February 22, April 30, and May 1. On the last date mentioned one was carrying nesting material. In the female collected the ovary contained only small follicles.

(312). Prinia crinigera striatula (Hume) – Brown Hill Warbler Gusalek, Nuristan

1. iii. 48.
$$3.1 \times 1$$
 we, 12 wi. 55 tl. 80

R. W. Sims has had the kindness to compare this specimen with the material in the British Museum. Unfortunately, there were no birds in comparable plumage so a precise comparison was impossible. It seems, however to be somewhat intermediate between striatula (type locality

(313). Ficedula parva parva (Bechstein) – Red-breasted Flycatcher Wama, Nuristan

Farah, SW Afghanistan

2. iv. 49.
$$3 \quad 1 \times \frac{1}{2} \quad -11 \quad -67$$

 $3 \quad 1 \times \frac{1}{2} \quad -11 \quad -70$
3. iv. 49. o $-12 \quad -67 \quad (9)$

Faizabad, Seistan

10. iv. 49.
$$3 \times 1^{1/2} - 10 - 68$$

Bamian, Central Afghanistan

These specimens belong to the typical subspecies. In the male collected on October 7 at Bamian, however, the throat patch is bordered with pale grey which may indicate a slight variation in the direction of albicilla, an eastern subspecies which is less common on migration through Afghanistan.

The Red-breasted Flycatcher occurs only on migration in Afghanistan. During the spring of 1948 I saw in Nuristan only the two specimens collected. In the spring of 1949 there were several males and females during the first week of April in the hotel garden in Farah and between April 10 and 18 a few in tamarisk scrub along the lower Farah Rud near Hamuni-Sabari.

In the autumn of 1949 at Bamian I saw, besides the specimens collected, on October 16 a single bird along a small brook at an altitude of 2900 m.

(315). Muscicapa striata neumanni Poche – Spotted Flycatcher Pashki, Nuristan

21. v. 48.
$$9 \times 4$$
 we. 14 wi. 86

Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$\stackrel{4}{\circ}$$
 10×7 - 13 - 85

Panjao, Central Afghanistan

12. vi. 49.
$$3.5 \times 4 - 14 - 90$$

Obeh, W Afghanistan

12. vii. 49.
$$3 \times 3 \times 3 \times 16 \times 88$$

13. vii. 49.
$$\cdot$$
 3 × 2 - 14 - 88

Jurm and Faizabad in Badakhshan (July 1948). In the middle of June 1949 I found a few at rocky and very desolate places in the valley near Panjao in central Hazarajat. In July adults and juvenals were rather common up to an elevation of at least 2400 m. in the scrub clad side valley at Obeh, east of Herat. It bred also in Darra-i-Shikari where on June 4 I collected a male with fully developed gonads and *vesiculae seminales*.

On May 21, 1948, I saw a few at Pashki in Nuristan. In spite of the rather late date they may have been migrants for they represent all my records from the long stay in this province. The gonads in the female collected were only slightly enlarged. Other birds on passage were presumably a single one at Lashkari-Bazar, south of Girishk, on May 5, and four individuals between September 8 and 29 at Bamian.

(316). Muscicapa sibirica gulmergi (St. Baker) – Sooty Flycatcher Pashki, Nuristan, 14. v.-12. vi. 48.

Weight 33: 9, 9, 10; 9: 10Wing 33: 72, 74, 76; 9: 74

This small series agrees with four specimens of *gulmergi* collected in May at Naltar in Kashmir.

I saw only the four specimens which were collected around Pashki in central Nuristan. In two males from May 27 and June 11 the testes were much enlarged (6×5 and 8×5) and injected, and also the *vesiculae seminales* were at their maximum size. The birds were taken in very different habitats as willow scrub in the bottom of the valley and the upper more open *Abies-Picea* forest at an altitude of about 3000 m.

(317). Muscicapa ruficauda Swainson – Red-tailed Flycatcher Pashki, Nuristan, 8. v.-10. vi. 48.

Weight 9 33: 11,2–12,8 (11,9); 99: 11,7, 14,1, 15,8 Wing 10 33: 74–79 (76,6); 99: 73, 73, 76

Usman Khel, SW Afghanistan

25. v. 49. 3×3 we. 12 wi. 74

I saw the birds in pairs and on the 20th I got the first female after having collected 9 males.

It was perhaps the most common bird around Pashki living in hazel and willow scrub in the bottom of the valley as well as in the various coniferous forests up to the tree limits. The song was heard all over, it may be interpreted as: ouh-githgith or ouh-gith-e-gith. The alarm note is a sparrow-like chirp which may be interrupted by yeep, yeep.

In the males the testes were enlarged and injected in all the specimens collected, but not until the end of May I noticed enlarged vesiculae seminales. In a female from May 20 the sex organs were enlarged but the oviduct was still not at its maximum size. A female from the 30th had a fresh full clutch of four eggs and a female from June 12 had an egg in the oviduct.

The nest with the clutch of four eggs was built about 8 m. up in an isolated Abies on a mountain slope at an elevation of 2600 m. It consisted of grass leaves and a little moss and was lined with coarse hairs. It was placed on a side branch about one foot from the stem.

On May 25, 1949, I heard a few in the forest near Usman Khel.

(318). Terpsiphone paradisi leucogaster (Swainson) – Paradise Flycatcher

Kwaja Chisht, W Afghanistan

19. vii. 49.
$$\ \ \, \stackrel{?}{\circ} \ \ \, 1 \times ^{1}/_{2} \quad \text{we. 18} \quad \text{wi. 87} \quad \text{tl. 88} \\ \ \, 0 \quad \qquad -19 \quad -92 \quad -93$$

On April 13, 1948, EDELBERG saw the first Paradise Flycatcher at Wama in central Nuristan. From then until our departure on May 6 we saw a few more down in the bottom of the valley and up in the oak forest. Both white and brown individuals occurred. Higher up the Pech-Parun Valley I did not see it except one single, brown bird south of Doau at 1800 m. on July 29.

In Badakhshan I saw one brown bird with short tail at Barak on July 11, 1948, and in western Afghanistan half a dozen brown individuals on July 19, 1949, at Kwaja Chisht, east of Herat.

b. Herat, W Afghanistan

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4. vii. 49. 3 \times 4 \times 3 we. 16 wi. 73
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3. vii. 49. $2 \times 1^{1/2} - 14 - 72$ juv.

4. vii. 49. $9.3 \times 2 - 15 - 72$ juv.

Kwaja Chisht, W Afghanistan

19. vii. 49. ♀ — 16 — —

Dr. Vaurie has had the kindness to compare my specimens with the fine series in the American Museum of Natural History. He found that the birds from Nuristan are too pale above and not dark or smoky enough below to be decolorans (type locality Jalalabad). They are very slightly darker than caschmirensis from Gilgit, Ladakh, and Baltistan but much closer, as a series, to the populations from Kangra, Kulu, and Lahul in northern Punjab which belong to caschmirensis also.

The adult specimens from Herat and Kwaja Chisht in western Afghanistan are badly worn, and the moult has started. They are quite pale below and are most probably *ziaratensis*, the type of which came from northern Baluchistan. Vaurie refers also some specimens collected by Koelz at Kandahar and Herat in October and November to this subspecies. One of my immature birds from Herat has a slight tinge of green on the back which probably shows a trend to *intermedia*, the race of north-eastern Iran.

The Grey Tit was rather common from Gusalek (1000 m.) to Stiewe (2600 m.) in the Pech-Parun Valley in Nuristan. It inhabited the oak forest and scrub around the cultivated fields, and I saw it only exceptionally in the lower parts of the *Pinus gerardiana* forest at Pashki.

In the males collected the testes were small in March, increased much during April, and reached their maximum size in the beginning of May. Unfortunately no females were collected in May, but two from the first week of June were no longer in breeding condition.

The alarm note seemed to me to be identical with that of European birds, whereas the characteristic saw-sharpening song never was heard in its typical form, but merely as a two syllabic *djee-vit*.

Outside Nuristan I saw very few Grey Tits. In the first week of July I

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Wama and Pashki, Nuristan, 5. iv.-24. vii. 48.

Weight ♂♂ 11 ad.: 12,0-14,3 (13,1); juv.: 14, 15;

♀♀ 5 ad.: 11,3-14,4 (13,1)

Wing ♂♂ 11 ad.: 73-80 (75,6); juv.: 75, 75;

♀♀ 5 ad.: 70-72 (71,0)

Sauzak Kotal, W Afghanistan, 22. vii. 49.
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Weight ♂♂ ad.: 14, 14; juv.: 13, 14; ♀♀ ad.: 12; juv.: 12 Wing ♂♂ ad.: 76, 77; juv.: 74, 76; ♀♀ ad.: 71; juv.: 70

Some specimens collected by Koelz at the Burchao Kotal in Bend-i-Turkestan (1950, Vaurie, Am. Mus. Nov. 1459: 43) have extended the western border of the range by almost 400 km. but I found it still farther to the west at the Sauzak Kotal, northeast of Herat, where it was rather numerous in the juniper wood at elevations between 2400 and 2500 m. Vaurie found no difference between the western population and those from eastern Afghanistan. In a letter Dr. Vaurie informs me that he does not recognize P. rubidiventris blanchardi any longer. After examination he now agrees with Whistler (1944: 516) that it is best synonymized with rufonuchalis (type locality Simla). In the two adult males from Sauzak the black throat patch is smaller than in the specimens from Nuristan, this may, however, be due to difference in skinning. – All the birds from Sauzak Kotal were moulting.

In Nuristan, where both the small Black Tits live together, I attempted in vain to find some differences between the two species in habitat preference or other biological aspects. In the oak forest around Gusalek (1000 m.) I saw very few Black Tits in February–March and the few I could identify were all melanolophus. In April and the beginning of May I found both species at Wama. In the oak forest I identified with certainty only melanolophus. In the coniferous forest at Pashki both were rather numerous, especially rubidiventris, and they occurred at all elevations from the bottom of the valley up to the tree limits at about 3000 m. Outside the coniferous forest they were found also in the hazel vegetation in the bottom of the valley and on mountain slopes with grass, scrub and a few isolated conifers. At Stiewe, the uppermost village in the valley, neither of the two species occurred.

(322). Parus melanolophus Vigors - Crested Black Tit

Gusalek, Nuristan

29. ii. 48.
$$3 \times 1 \times 1$$
 we. 8 wi. 65 o $-8 -62$ 20. iii. 48. $9 \times 7 -63$

Wama, Nuristan

3. v. 48.
$$3 \times 6 - - 62$$

Pashki, Nuristan

24. v. 48.
$$3 \quad 9 \times 6 \quad -9 \quad -65$$

 $3 \quad 7 \times 5 \quad -9 \quad -64$
26. v. 48. $3 \quad 7 \times 5 \quad -8 \quad -65$
9. v. 48. $9 \quad 1 \quad -9 \quad -63$

Usman Khel, Gardez, E Afghanistan

25. v. 49.
$$3 \times 3 - 9 - 64$$

o $-8 - 61$

The distribution in Nuristan has been discussed under *P. rubidiventris*. In the province of Gardez I found it on May 25 rather numerous in the coniferous forest between Usman-Khel and Saroti Kotal.

In the males from May the testes were at their maximum size and in those collected in the last days of the month the *vesiculae seminales* were much enlarged. In the female from May 9 the follicles were small, but the oviduct rather enlarged. The male taken on May 3 carried, together with the female, small feathers to a nest hole in an oak tree. The hole was 12–15 m. above the ground. On May 25 at Usman-Khel one was carrying food.

The voice I heard as: 'be-dah, 'bi-dah.

(323). Aegithalos leucogenys (Moore) – White-cheeked Tit

Orites leucogenys Moore, Proc. Zool. Soc. London 1854: 139 (1855 – Chigha Sarai, Nuristan)

Gusalek and Wama, Nuristan, 15. iii.-1. v. 48.

Weight 5 33: 6-8 (7,2); 4 99: 6-7 (6,8) Wing 5 33: 57-58 (57,4); 4 99: 52-55 (54,0)

Tail 5 ♂♂: 53–57 (54,6); 4 ♀♀: 49–52 (50,3)

Iris pale straw-coloured to grey vellow Rill black Feet pale horn

In the males and females which were collected in March the gonads were inactive, but a male from April 11 had gonads at its maximum size (5×3) . On March 31 and April 22 I saw birds collecting feathers, presumably for the nest, and on April 25 I found a nest with five eggs. It was in an open oak forest at an elevation of 1650 m. The ball-shaped nest was placed in the top of an oak bush $2^{1}/_{2}$ m. high, and it was quite hidden in the foliage. The height of the nest was about 11 cm., the breadth 8 cm. The entrance measured $2^{1}/_{4}$ by $2^{3}/_{4}$ cm. and it was situated near the somewhat flattened upper side of the ball. This was made of dry grass leaves, which on the outside were mixed with moss. The inside was lined with feathers. The pure white eggs were slightly incubated, the weight of four of them was $0.9 \, \mathrm{g}$, of the fifth $1.0 \, \mathrm{g}$.

The alarm-note is a weak snarl which may remind a little of the voice of the Wren. The call-note I heard as: üt, üt.

(324). Remiz pendulinus caspius (Pelzam) – Penduline Tit Estuary of Farah Rud, Seistan

7. iii. 49.
$$3 \times 1 \times 1$$
 we. - wi. 56
9. iii. 49. $2 \times 1^{1}/_{2} - 6 - 52$

The badly damaged male specimen shows no black nuchal band and a nearly absent black frontal band which is followed by a broad chestnut band. These characters group it with *caspius*, in which, however, the chestnut band may be more extended. The races of this difficult species were studied recently by VAURIE (1950 and 1952, Am. Mus. Nov. 1459: 51-62, 1549: 1-9). The female collected was moulting the rectrices and some body feathers.

In the tamarisk scrub in the Estuary of Farah Rud we saw on March 7 and 9, 1949, a few small parties of the Penduline Tit of which we collected the specimens mentioned above. Presumably they were winter visitors or migrants on their way to the breeding places in Turkestan. I searched in vain for the local breeding race, the black-headed R. p. nigricans which is known only from Iranian Seistan. But I also failed to find the extensive reed beds which are its natural habitat.

I found Brooks's Nuthatch only in the Pech-Parun Valley in Nuristan. A female was collected on March 19 in the oak forest at Gusalek at an elevation of 1850 m. It was the only individual seen during all our stay at this locality. At Wama it was also rather scarce as I merely saw it twice, namely two individuals on April 19 at the upper border of the oak forest and a pair on the 21st up in the deodar forest. At Pashki it was more common and often seen in glades in forests of Abies, Picea, and Cedrus at elevations up to at least 2600 m., but in a few cases I found it also in hazel scrub and poplar groves down in the bottom of the valley. At Stiewe, situated above the forest zone, I did not find it.

In the males collected between April 19 and May 21 the testes were at their maximum and measured from 5×4 to 6×4 and in most of the specimens from May the testes were injected. In two females from May 21 and 23 the oviducts were at their maximum, the follicles rather small, and no calyces were visible, so either the maximum growth of the follicles had not been reached or the birds had completed laying shortly before they were collected. On May 26 I saw a nest hole high up in the trunk of a decayed conifer. When I visited the locality again on June 10 the hole was smoothed with mud which protruded a little from the surface of the trunk.

(326). Sitta leucopsis leucopsis Gould – White-cheeked Nuthatch Pashki, Nuristan, 24. v.-9. vi. 48.

Weight 6 ♂♂: 14,7–15,9 (15,1); ♀: 13,6

Wing 6 ₹₹: 76–79 (77,7); ♀: 73

Bill (bs) 6 ♂♂: 18–19 (18,3); ♀: 16

I found the White-cheeked Nuthatch only around Pashki in Nuristan where it was rather scarce and lived in the same habitats in the coniferous forests as did S. europaea, and, as in the case of the latter, is distrubuted up to the upper limits of the forest. S. europaea was seen searching for food on the trunks of the conifers, but leucopsis in contrast was nearly always seen in the top of the trees or out on the small branches.

In most of the males collected in May the testes were injected and at about their maximum size (7×5) . In the female collected on May 26 the

Faizabad, Badakhshan

10. vii. 48.
$$\ \ \,$$
 6×3 we. 35 wi. 87 bn. 17

 $\ \ \ \,$ — 35 — 85 — 17

 $\ \ \ \,$ — 32 — 87 — 16 subad.

Bamian, Central Afghanistan

13. ix. 49. $\ \ \,$ 2×2 — 35 — 86 — 18

15. ix. 49. $\ \ \,$ 2×2 — 35 — 87 — 19

8. ix. 49. $\ \ \,$ 4×2 — 30 — 85 — 17

15. ix. 49. $\ \ \,$ 9 — 33 — 85 — 17

22. ix. 49. $\ \ \,$ 3×2 — 34 — 81 — 18

Darra-i-Shikari, Central Afghanistan

4. vi. 49. $\ \ \,$ 3 1 1/2×1 — 25 — 81 — 15 juv.

16. ix. 49. $\ \ \,$ 1×1 — 34 — 83 — 18

Panjao, Central Afghanistan

14. vi. 49. $\ \ \,$ 1×1 — 32 — 89 — 15 subad.

Obeh, W Afghanistan

13. vii. 49. $\ \ \,$ 1×1 — 36 — 89 — 18

15. vii. 49. $\ \ \,$ 1×1 — 37 — 89 — — 17. vii. 49. $\ \ \,$ 1×1 — 37 — 89 — — 17. vii. 49. $\ \ \,$ 1×1 — 37 — 89 — — 17. vii. 49. $\ \ \,$ 1×1 — 37 — 89 — — 17. vii. 49. $\ \ \,$ 1×1 — 37 — 89 — — 18

Haibak, N Afghanistan

2. viii. 49. $\ \ \,$ 1×1 — 33 — 82 — 19

 $\ \ \ \,$ 1×1 — 34 — 84 — 19

3. viii. 49. $\ \ \,$ 4×3 — 32 — 84 — 18

 $\ \ \ \,$ 3×2 — 32 — 80 — 18 subad.

Paigah Kotal, N Afghanistan

In the specimens from Haibak the upper parts are slightly paler (but not more bluish) and the rust of the under parts is also slightly paler than in the specimens from the other localities in Afghanistan. Meinertzhagen (l. c.) found the same character in his material from Haibak and because of this difference separated the population under the name *subcæruleus*. Vaurie (1950, Am. Mus. Nov. 1472: 19), who has examined a very large material of this species believes, however, that it is best not to recognize *subcæruleus*.

Central Afghanistan: I saw it in June, August, September, and October in the upper Ghorband Valley (above 2000 m.), Darra-i-Shikari, and the Bamian Valley but not over an elevation of 3000 m., or in the valleys between Shahidan Kotal and Band-i-Amir. In July I saw a single bird at Sar-i-Chashma east of the Unaï Kotal, and a few west of this pass between Diwal Kol and Panjao.

Western Afghanistan: I saw a few along the road from Herat to Islam Qala at the Iranian border on July 6; and in the side valley at Obeh east of Herat I found it rather common up to an elevation of about 2700 m.

Northern Afghanistan: I saw it in the last week of July at Qala Nau, and between this town and Bala Murghab, as also at Maimana. In the first week of August it was common around Haibak where it inhabited boulder strewn mountain slopes as well as rock walls in some canyons. It occurred also in the Paigah Kotal where it was collecting nuts from the pistachio bushes. On a drive up the Surkhab Valley on August 6 I found it some kilometres above Pul-i-Khumri and at Doab. Meinertzhagen is therefore incorrect when he presumes that a gap of a hundred miles, in which the Rock Nuthatch is not found, separates the populations at Haibak and Darra-i-Shikari.

All the adults were collected from the beginning of July and later. Their sex organs were in an inactive stage. A family party was seen at Panjao on June 14, while all the other birds were either alone or in pairs. In the middle of July I found an unoccupied nest above Obeh at an elevation of 2300 m.

(328). Tichodroma muraria nepalensis Bonaparte – Wall-Creeper Gusalek, Nuristan

14. iii. 48.
$$3 \times 1$$
 we. 13 wi. 102 bn. 19

Bamian, Central Afghanistan

23. ix. 49.
$$3 \times 1 \times 1 = 17 = 103 = 19$$

4. x. 49.
$$3 \times 1 \times 1 = 19 = 103 = 19$$
 subad.

According to Vaurie (1950, Am. Mus. Nov. 1742: 30) the populations of Afghanistan belong to the darker and longer-winged eastern race. nena-

have been true of a pair observed at Wama on March 31 and a single bird on April 4. Higher up the valley I saw none, but on the north side of the main range, in Badakhshan, I saw two at Sanglich (2900 m.) on July 16 and one at an elevation of about 4100 m. in the Weran Valley on the 21st. These were undoubtedly on their breeding grounds. – In the region of Bamian in central Afghanistan I saw between September 13 and October 16, 1949, single birds or pairs at several localities all the way from the bottom of the valley up to an elevation of nearly 3500 m., and from Darrai-Shikari in the east to Band-i-Amir in the west. Some or all of these birds may have been on or near their breeding grounds. – Two single birds at Kabul on January 9, 1948, and January 29, 1949, were, however, more likely to be visitors driven down from the higher mountains by the winter weather.

(329). Certhia himalayana - Himalayan Tree Creeper

- a. Certhia himalayana taeniura Severtzov
- b. Certhia himalayana limes Meinertzhagen

Synonym: Certhia himalayana cedricola Koelz, Proc. Biol. Soc. Washington 52: 65 (1939 - Jalalabad, E Afghanistan)

a. Sauzak Kotal, W Afghanistan

22. vii. 49.
$$\bigcirc$$
 2×1 we. 8 wi. 67 bs. 17

b. Pashki, Nuristan

23. v. 48.
$$\stackrel{?}{\circ}$$
 8×5 -9 -73 -18
26. v. 48. $\stackrel{?}{\circ}$ 7×4 -8 -72 -16
0 -9 -70 -18
30. v. 48. $\stackrel{?}{\circ}$ 7×5 $--$ 71 -18

In the specimen from Sauzak Kotal, northeast of Herat, both the upper and under parts are distinctly paler than in the small series from Nuristan. According to Vaurie (1950, Am. Mus. Nov. 1472: 36) the populations in western Afghanistan are identical with specimens of taeniura from Samarkand and Ferghana, whereas those from eastern Afghanistan he refers to limes (type locality Gilgit), a cline of increasing colour saturation running eastward.

I collected the specimen mentioned in the list from Sauzak Kotal at an elevation of about 2400 m. in the juniper forest. It is in the post juvenile moult. – At Gusalek in Nuristan I saw single specimens on March 1, 8, and

(330). Cinnyris asiatica brevirostris (Blanford) - Purple Sunbird

On our march in the lower Pech Valley from Sematam to Chigha Sarai on August 7, 1948, I saw a greyish sunbird which undoubtedly was a female or a juvenal of the Purple Sunbird. According to Whistler (1945: 289) Koelz obtained a small series of this species at Kalaigulaman. This locality is in Laghman, southwest of Nuristan.

(333). Emberiza leucocephala leucocephala Gmelin – Pine Bunting Gusalek, Nuristan

The upper parts of this specimen is more greyish than in a series from West Siberia in Johansen's collection, but this may only be a case of individual variation.

The Pine Bunting is a winter visitor and passage migrant in Afghanistan. The specimen collected at Gusalek in Nuristan is my only record. It was shot, together with an *Emberiza cia*, from a tree in the cultivated area.

(335). Emberiza bruniceps Brandt - Red-headed Bunting

Farah, SW Afghanistan

29. iv. 49.
$$3 \times 6$$
 we. 22 wi. 87

Shin Dand, W Afghanistan

28. vi. 49.
$$3.7 \times 5 - 24 - 89$$

30. vi. 49.
$$37 \times 4 - 24 - 89$$

Ardewan Kotal, W Afghanistan

$$96 \times 4 - 25 - 83$$

Herat, 76 km. west of

8. vii. 49.
$$Q^{-1}/2 \times 1/2 - 13 - 13 - 10$$

Tirpul, W Afghanistan

9. vii. 48.
$$3 \quad 6 \times 4 \quad -25 \quad -(86)$$

 $3 \quad 9 \times 5 \quad -27 \quad -86$

Obeh, W Afghanistan

13 vii 49
1
 7 \times 4 2 25 2 87

STRESEMANN found (1924, Orn. Monatsber. 32: 42) that *E. bruniceps*, as *E. melanocephala*, moults its body feathers twice a year, but this was denied by WITHERBY (1949, Handb. Br. Birds 1: 122). Some of my specimens show that the males must moult twice although the moult may be partial, involving only some body feathers.

In an adult male from July 9 the wing feathers and rectrices are very worn, except two new, growing rectrices. On the back, among worn feathers of the nuptial plumage, there are some new ones which are grey-brown with dark brown median streaks. These feathers will be changed again when the birds assume the nuptial plumage. Among the worn chestnut feathers of the crown there are also some new ones, with a grey-brown tinge and dark brown median streaks, which will also be replaced at the prenuptial moult. The new chestnut throat feathers have white fringes. It is possible that these fringes will wear off so that these feathers may not be replaced at the prenuptial moult.

In another adult male from June 30 in which the mantle is more advanced the new feathers on the back are similar to those of the female. New feathers are breaking out on the crown and throat but their pattern cannot be seen.

Finally in a third adult male from July 24 the plumage of the back is still more like that of a female, and the new throat feathers are as in the male mentioned first.

These specimens show that the adult males go through a postnuptial moult acquiring a plumage which to some extent is similar to that of the female. This is shown by the feathers of the mantle which have greyish brown, not olive, fringes, and by the crown feathers which are greyish brown with dark brown median streaks.

In a male collected on April 29, 1949, the date of the first record, the testes were injected and measured 8×6 which is nearly maximum size, but also in birds from the end of June and the beginning of July the testes were about of this size and in some of the specimens the *vesiculae seminales* were enlarged as if the birds were still in the active stage. All the females were collected in July and had inactive sex organs. Courtship flights were seen from the beginning of May.

the west to Obeh in the east. Further east of Kwaja Chisht I did not find it. At Obeh it was most numerous in the fields in the main valley, but it occurred also rather commonly in the scrub upward through the side valley to an elevation of about 2000 m. In the Ardewan Kotal north of Herat it was common in the cultivated fields at 1600 m.

Northern Afghanistan: It was less numerous in this part of the country but I saw it here and there in cultivated areas along our route from Qala Nau over Bala Murghab, Maimana and Andkhui to Haibak. From Andkhui to west of Balkh it was especially scarce. We saw it also at Chashma-i-Sher and in the Surkhab Valley. In Badakhshan I found it in the Kokcha Valley from Ispismir at an elevation of 1800 m. down to Faizabad and again up the Warduj Valley to Robat at about 2300 m.

Central Afghanistan: It was common in the Ghorband Valley, but I did not record it on a short visit to the Bamian Valley on June 5-6, and not in eastern Hazarajat between the Unaï Kotal and Panjao.

Migration: I made very few observations on the migration of this species. At Farah the first individuals were seen on April 29, 1949. There seems to be no spring migration through Nuristan, where it was neither seen during the breeding season. At Bamian a few individuals were recorded on September 15–17 and a single one on October 15, 1949.

(336). Emberiza stewarti Blyth - White-capped Bunting

Wama and Pashki, Nuristan, 12. iv.-9. vi. 48.

Weight 13 33: 12,9–17,0 (15,7); 5 99: 13,0–16,7 (14,6)

Wing 13 ♂♂: 77–82 (79,2); 5 ♀♀: 71–76 (73,4)

Obeh, W Afghanistan, 15. vii. 49.

Weight 33: 14, 17 Wing 33: 77, 82

The two adult males collected on July 15 at Obeh in western Afghanistan are badly worn. The postnuptial moult had just started, some of the outer secondaries are new and a few body feathers are growing. The chestnut of the upper parts is much paler than in the spring specimens from Nuristan, but this difference is probably caused through wear.

flock. The testes of the male measured 3×2 against 5×4 to 6×4 in other males from the same time but occurring single or in pairs.

I found the birds throughout the most open parts of the oak forest and in the scrub around the small cultivated fields. Although we left before the breeding season began, I think they really stayed there to breed for the males were singing all over, and, in a male from May 3 the testes measured 8×5 which is near the maximum. In females collected on April 28 and May 1 the follicles were still small.

At Pashki, higher up the valley, it inhabited the open and very arid *Pinus gerardiana* forest on the mountain slopes exposed to the south east, and in the mixed oak and *gerardiana* forest on the steep rocks just over the bottom of the valley. I saw a few birds in other habitats, but only exceptionally, for instance on July 25 two pairs were seen in scrub of rose and junipers above the tree limits at an elevation of 3200 m.

In males collected at Pashki between May 22 and June 9 the testes were injected and measured from 6×5 to 9×7 , and the vesiculae seminales were also much enlarged. In two females from May 17 and 21 the sex organs were still rather far from the maximum size, so the breeding season seems to begin very late.

I did not find the species at Stiewe, situated above the tree limit and the highest village in the valley.

Outside Nuristan I found the White-capped Bunting only at Obeh, east of Herat, where a few lived at an elevation of 2000 m. in a very rocky valley with a few trees and a little scrub. On the surrounding desolate mountain slopes it did not occur. Previously it was known only from the eastern parts of Afghanistan. As it inhabits the eastern parts of Iran, however, it was not surprising to find it at Obeh.

(338). Emberiza buchanani buchanani Blyth - Grey-necked Bunting

Synonym: Emberiza Huttoni Blyth, Jour. Asiat. Soc. Bengal 17: 811 (1849 – Afghanistan)

Tera Kotal, Gardez, E Afghanistan

reta Rotal, Gardez, E Arghanistan

Bamian, Central Afghanistan, 6.-24. ix. 49.

Weight 6 ♂♂: 18-26 (22,6); ♀♀: 19, 19, 24

Wing 6 ♂♂: 83–89 (86,2); ♀♀: 82, 84

Obeh, W Afghanistan, 13.-15. vii. 49.

Weight 33 ad.: 22; juv.: 21; ♀: 20

Wing ♂♂ ad.: 85; juv.: 86; ♀: 81

The four breeding males collected in Central Afghanistan in June and July differ distinctly from five males collected in Iran (Zagros and the mountains southeast of Gorgan). Although these specimens are in the same stage of plumage, the upper parts in the Afghan birds are much darker, almost dark grey, not pale grey brown. In this respect the Afghan breeding birds are intermediate between the very pale Iranian populations and the northeastern dark subspecies, obscura, but considerably nearer to this last form. The most convenient solution, from the point of view of the nomenclature, would be to have one name for the western, pale populations, and another one (obscura) for the eastern, dark one, and to consider the Afghan populations as intermediate. According to TICEHURST (Ibis 1939: 350) the name "... huttoni has the same basis as buchanani, and both refer to the Afghan-Persian form". As, however, the Afghan populations are closer to obscura we cannot unite them with the Iranian populations under the name buchanani (= huttoni), but have to restrict this name to either the Iranian or the Afghan birds, and I believe we have to use it for the Afghan birds since Afghanistan is given as the type locality for huttoni. For the Iranian birds we have then to use the name cerruttii De Filippi (1863, type locality Persia).

I have not been able to compare the autumn specimens from Bamian with material of autumn birds from Iran or from the range of obscura. Most likely however, they too belong to the intermediate race.

In the females collected on June 9 and in the males from June 14, and July 13, the postnuptial moult had started. All the birds collected at Bamian in September had completed this moult, except a female from the 23rd in which the first primary and some rectrices are still not renewed.

The Grey-necked Runting is widely distributed in the mountainous

3200 m. along the road to the Unaï Kotal. West of that I found a few again at Panjao.

In western Afghanistan I saw it only in the side valley at Obeh where it lived on the slopes above the scrub vegetation. — I did not see it during my short travels in northern Afghanistan or during my long stay in Nuristan.

The observations in the field and the inspection of the sex organs gave no clear idea of the duration of the breeding season. In the females collected at the end of May and the beginning of June the follicles were small, and the oviducts far from their maximum size. The largest testes seen (8×5) were in a male collected on June 14; this male had also enlarged vesiculae seminales but on the other hand it had already started to moult. The only juvenal was collected on July 13.

I saw a varying number at Bamian in the autumn between September 6 and 24. On some days there were none, but on others the bunting was rather numerous, so I got the impression that there was some migration through the valley. After the 24th and until we left on October 17 I saw none on all my excursions to the surrounding mountain slopes.

(339). Emberiza cia par Hartert - Meadow Bunting

Gusalek, Pashki, and Stiewe, Nuristan, 1. iii.-24. vii. 48.

Weight 17 ♂: 18,9–26,1 (21,9); 8 ♀♀: 18,9–22,5 (20,3)

Wing 18 ♂3: 82–87 (84,7); 8 ♀♀: 75–80 (77,5)

I have not been able to compare this series to *stracheyi* (type locality Kumaon) or to topotypical *par* from Transcaspia, but Hellmayr (1929, Field Mus. Nat. Hist. 17, no. 3: 63) found that the populations of Chitral and Gilgit, just east of Nuristan, are intermediates between these two subspecies, but nearest to *par*. On geographical grounds I therefore refer the population of Nuristan to this last race.

In Nuristan the Meadow Bunting was a common breeding bird in the upper parts of the Parun Valley. In the Pech Valley down at Gusalek (1000 m.) I observed some passage between March 1 and 17. The birds

the typical *Pinus gerardiana* forest, where *E. stewarti* was common, the Meadow Bunting did not live. As a matter of fact, these two buntings were only exceptionally found in the same habitat. – The Meadow Bunting was also rather common at Stiewe above the limits of the forest, in places where some scrub was to be found even though it consisted merely of some low rose or barberry bushes.

In Badakhshan it inhabited the Kokcha Valley, where I found it from Nau (2750 m.) down to Ispismir (2000 m.); and the Warduj and Sanglich valleys, where I saw it from below Robat (2300 m.) up to above Zebak (2400 m.).

In the males collected in March the testes were small (2×1) . In the large series from the middle of May to late June they were injected, and at or very near their maximum size $(7\times5$ to $9\times7)$. Also the size of the *vesiculae seminales* indicated that the males were in the active stage. In seven females collected between May 12 and June 22 the sex organs were more or less enlarged but in one only, from June 9, the oviduct was at its maximum and one of the follicles had gone into the period of maximum growth. The birds were in pairs when we arrived at Pashki on May 8, but judging from the inspection of the sex organs the laying may start as late as in June and presumably it can continue until late July because on the 24th I saw a pair behave as if ready to lay, and in a male collected on the same day the sex organs were at their maximum. On three occasions I saw birds flying with nest material, it was on May 28, and June 22 and 23; and on July 1 I saw in Badakhshan a just fledged young.

(341). Emberiza schoeniclus pallidior Hartert – Reed Bunting Estuary of Farah Rud, Seistan 26. ii. 49. 3 1×1 wi. 81

This specimen agrees with a series from Tomsk, which according to Johansen is typical pallidior. It is my only record of this species in Afghanistan. Sarudny described a thick-billed subspecies, korejewi from Persian Seistan, but neither this nor any other subspecies has been found in

Pashki, Nuristan

25. vii. 48. 3 we. 10 wi. 74 juv.

17. v. 48. $9 4 \times 2 - 9 - 71$

22. v. 48. $9 4 \times 3 - 10 - 71$

Usman Khel, Gardez, E Afghanistan

25. v. 49. $3.5 \times 4 - 10 - 76$

Band-i-Amir, Central Afghanistan

28. ix. 49. \circ — 12 — 72 juv.

The Gold-fronted Finch is a breeding bird in the mountainous eastern, central and western parts of Afghanistan. In Nuristan I found it around Pashki at elevations from about 2600 m. to well over 3100 m. in scrub clad glades in the coniferous forests, and in the scrub above the forest. I saw it also a few times in June on the mountain slopes around Stiewe. In two females collected at Pashki on May 17 and 22 the sex organs were rather small. In two males from June 3 and 12 the testes were injected and about their maximum size.

In Badakhshan I noticed it in July at several localities in the Weran, Kokcha, Warduj, and Sanglich valleys at elevations between 2300 and 3300 m. – At Usman Khel in the province of Gardez I saw on May 25, 1949, a few in the open deodar forest 6 km. north of Saroti Kotal. – It breeds also in western Afghanistan where on July 15 I saw a pair in the scarce vegetation among scattered junipers on a mountain slope at 2500 m. above Obeh.

Outside the breeding season I saw two (family-)parties on the stony slopes above one of the lakes at Band-i-Amir in central Afghanistan. A bird collected here is moulting the immature plumage.

(346). Carduelis carduelis paropanisi Kollibay – Goldfinch Stiewe, Nuristan

24. vi. 48. 3 7×4 we. 17 wi. 82

Bamian, Central Afghanistan

Sar-i-Chashma, Maidan, E Afghanistan

The Goldfinch is widely distributed in Afghanistan but it seems to be rather scarce everywhere. Outside the breeding season some irregular migration takes place.

In Nuristan I found it only at Stiewe where I collected a male with testes in the active stage on June 24. It was taken in birch scrub near cultivated fields in the bottom of the valley at an elevation of 2600 m. It was together with a second individual, presumably the female. — In Badakhshan I saw two single birds in July in the Kokcha Valley, one at 2000 m., and one down between Faizabad and Barak.

In June 1949 I saw a few around Sar-i-Chashma in the Maidan Valley, on June 15 a flock of seven individuals was seen west of the Unaï Kotal in boxthorn scrub. I thought then it was a family party but four of the party were collected, and they were all adult males with enlarged *vesiculae seminales*, and *testes* which measured about 5×4 . — In the side valley at Obeh, east of Herat, it was less scarce than at the other localities, and it inhabited the tree and scrub clad bottom of the valley as well as the dry mountain slopes from an elevation of about 1800 m. up to 2400 m. Between July 11 and 16 I found here a young that had just fledged, as well as a female with an egg in the oviduct. I believe, however, that these dates represent the end of the breeding season for all the birds, except a female (not that in laying condition), had started to moult.

In the autumn of 1949 at Bamian I observed no migration but only two single birds at 2950 and 3100 m. on September 13, and another single one and a pair at 3100 and 2900 m. on October 4.

(347). Carduelis flavirostris korejewi (Sarudny & Härms) – Twite Shibar Kotal, Central Afghanistan

2. vi. 49.
$$3 \quad 6 \times 4$$
 we. 13 wi. 71
7. vi. 49. $3 \quad 4 \times 4$ — 14 — 75
0 — 13 — 73

Bamian, Central Afghanistan

11. x. 49.
$$Q = 2 \times 1^{1/2} - 12 - 73$$

TT " TZ + 1 O + 1 A O + 1 .

(Ibis 1938: 502) and VAURIE (1949, Am. Mus. Nov. 1424: 19) refer the Afghan populations to korejewi.

When I went through the Shibar Kotal on June 2 and 7, 1949, I saw a few Twites on slopes partly covered with grass at an elevation of 2600 m. In two males collected there the testes were at or near their maximum size.

On June 10 I found a few pairs and parties of three to four birds on both sides of the Unaï Kotal. Two males collected had testes at maximum size, and a female was about to lay as was one collected on the 14th at Panjao.

During all our stay at Bamian in the autumn of 1949 I saw it only once, namely on October 11 when a few came to drink at a small spring high up in one of the side valleys. The elevation was about 3000 m.

(348). Carduelis cannabina bella (Brehm) - Linnet

Sauzak Kotal, W Afghanistan

22. vii. 49.
$$\bigcirc$$
 2×3 we. 17 wi. 81 juv.

This specimen was collected at an elevation of 2300 m. just south of the pass. A pair was seen on July 14, 1948, between Supian and Robat in the Warduj Valley, Badakhshan.

(349). Leucosticte nemoricola altaica Eversmann – Stoliczka's Mountain-Finch

Pashki, Nuristan, 11. vi. 48.

Stiewe, Nuristan

16. vi. 48.
$$\bigcirc$$
 6×3 we. 21 wi. (60) albino 22. vi. 48. \bigcirc 1¹/₂ — 19 — 93

Weran Valley, Badakhshan

21. vii. 48.
$$3 \quad 9 \times 6 \quad --- \quad --- \quad 98$$

 $3 \quad 8 \times 6 \quad --- \quad --- \quad 93$
 $2 \quad --- \quad --- \quad 94$

Miyan Deh, Badakhshan

1. vii. 48.
$$39 \times 6 - 21 - 95$$

 $2 \text{ laying } -20 - 90$

mountain range. On June 11 I came across a flock of half a hundred individuals at Pashki in Nuristan which were feeding in a large open area at an altitude of 2900 m. near the upper limit of the coniferous forest. In the two males collected there the testes were injected and at their maximum size (9×6 mm.), and the *vesiculae seminales* were much enlarged. In three females collected the sex organs were also enlarged but still far from the maximum size. – During the last week of June it was numerous on the *Artemisia* clad mountain slopes around Stiewe where it occurred in flocks which consisted of from a few up to a hundred individuals. In a female from the 22nd the follicles were slightly enlarged but the oviduct was far from the laying stage.

In Badakhshan I found it in July at several localities in the Weran, Kokcha, Warduj, and Sanglich valleys at elevations between 2300 and 4000 m. On July 1 it was both in pairs and in flocks in the fallow fields around Miyan Deh (2500 m.) in the Kokcha Valley. A female collected here had an egg in the oviduct. As all the remaining follicles were quite small, and three calyces were visible on the ovary, the full clutch would have consisted of only three eggs. Another female collected on July 21 at 3600 m. in the Weran Valley had completed laying. Three males collected on July 1 and 21 had injected testes at their maximum size (9×6) and enlarged *vesiculae seminales*. All these observations seem to show that the breeding season does not start before July.

(350). Leucosticte brandti pamirensis Severtzov – Brandt's Mountain-Finch

Weran Valley, Badakhshan, 21. vii. 48.

Wing ♂3: 110, 114; ♀: 105

These three Afghan birds are considerably darker on the upper parts than three winter specimens of nominate *brandti* from Turkestan to which I have compared them, and the pink edges of the upper wing coverts are narrower. These differences are characteristic of *pamirensis*.

I found Brandt's Mountain-Finch only in the Weran Valley in Badakh-

(351). Rhodopechys sanguinea sanguinea (Gould) – Crimson-winged Finch Panjao, Central Afghanistan, 12.-16. vi. 49.

Weight ♂3: 34, 44; ♀♀: 32, 33 Wing ♂3: 105, 106; ♀♀: 97, 103

Although the Crimson-winged Finch is known from several localities in western, central, and northeastern Afghanistan I saw it only at Sar-i-Chashma in the Maidan Valley and around Panjao in Hazarajat. On June 19, 1949, parties of 2, 4, and 4 individuals were feeding among flowering Salvia on the mountain slopes at Sar-i-Chashma. The crimson wing patches agreed rather well with the violet to red colours of the Salvia. — On June 12 and 16 I saw two pairs and a flock of 5 individuals on more fertile patches on the lower parts of the else very desolate mountain slopes at Panjao. The elevation was about 2700 m. In one male the testes were of medium size $(6\times4 \text{ mm.})$, in another about maximum $(11\times6 \text{ mm.})$. In the two females the oviduct was enlarged but far from the maximum size. One of them seemed to have been incubating.

(352). Rhodopechys mongolica (Swinhoe) – Mongolian Desert Finch Bamian, Central Afghanistan, 5. vi. 49 and 20. ix.-4. x. 49.

Weight 16 33: 18-24 (20,9); 10 99: 19-23 (20,6) Wing 13 33: 89-95 (91,8); 99: 87, 89, 89, 94

Shibar Kotal, Central Afghanistan

2. vi. 49.
$$37 \times 4$$
 we. 21 wi. 90 $310 \times 5 - 21 - 92$ $39 \times 7 - 20 - 91$

Panjao, Central Afghanistan

Dr. Vaurie has kindly identified these specimens as belonging to Rh. mongolica. All the adult autumn birds collected between September 8 and October 4 are in varying stages of complete moult. The body feathers are all new but many that were still growing could be seen on the inside of the skins. The specimens show some individual variation as to the colours of the upper parts which vary from greyish to pale brownish. In the greyish

stony side valley at Bamian. Apparently they had their nests there in a vertical wall of conglomerate. The next day I saw several pairs and small flocks at an elevation of 2800 m. in a broad valley west of Bamian. — On June 16 I saw three birds at a spring (elevation 2950 m.) near Panjao in Hazarajat. There were here a few cultivated fields surrounded by desolate mountain slopes with plants of the *Artemisia* community.

The flocks observed at Bamian during the autumn represented probably the breeding birds of the region. They were always found at the same places but only at a few localities. One of these localities consisted of the narrow valley where I had seen them during the breeding season.

The breeding season seems to be June, or includes June, for the birds collected in this month had testes of about maximum size $(7 \times 4 \text{ to } 10 \times 5)$, and some of them had much enlarged *vesiculae seminales*. A female from June 5 was just about ready to lay, and one from the 16th with an oviduct of maximum size had presumably just finished laying.

The voice I rendered as: 'djü-vüd or 'dju-v \overline{u} d alternating with 'djudju-v \overline{u} .

(353). Rhodopechys githaginea crassirostris (Blyth) – Trumpeter Bullfinch Carpodacus crassirostris Blyth, Jour. As. Soc. Bengalen 16: 476 (1847 – Afghanistan)

70 km. north of Shin Dand, W Afghanistan 1. vii. 49. $\sqrt[3]{1 \times 1/2}$ we. 19 wi. 86 juv.

Dr. Vaurie has kindly examined this immature specimen, and found it to be a *Rh. githaginea*. He writes: "The bill is not so thick or so large as it is usually in this species. It is difficult to be dogmatic about subspecific identification with only one immature specimen, but it seems to be *crassirostris*."

The specimen was collected from a party of four. One or two of the other birds were adults with much red colours in the plumage. The family party lived in a desolate hilly country with stony slopes.

For the distribution of this and the preceding species in Afghanistan see

I found Lichtenstein's Desert Finch only at the two localities mentioned in the list. The two specimens from Qala Nau were a pair which, together with a second pair, lived in the hotel garden. The female had an egg in the oviduct. In spite of the active stage of the gonads, both male and female had just started to moult, the female had some new body feathers and the male new inner secondaries.

At Bala Murghab the only individual seen was the male collected. It was singing perched in a tree at the side of the river. The song of this bird is fine, not unlike that of a thrush.

(355). Carpodacus erythrinus ferghanensis (Koslova) - Common Rosefinch Pashki, Nuristan

11. vi. 48.
$$3$$
 6×4 we. 22 wi. 82
12. vi. 48. 3 8×5 — 22 — 84

Stiewe, Nuristan

19. vi. 48. 3
$$10 \times 7$$
 - 21 - 83
2 2 - 21 - 80

Tilli, Badakhshan

18. vii. 48.
$$\stackrel{?}{0}$$
 12×7 — 22 — 86 $\stackrel{?}{0}$ 0 — 21 — 85

Panjao, Central Afghanistan, 12.-17. vi. 49.

Weight 9
$$33$$
: 20–22 (20,9); 99 : 23, 25, 26, 26 Wing 10 33 : 82–88 (84,1); 99 : 82, 82, 83, 84

Vaurie (1949, Am. Mus. Nov. 1424: 36) has examined large series from every important part of the range of this species, and refers all the specimens collected by Koelz in Afghanistan to ferghanensis, the subspecies breeding in the country. As, however, both nominate erythrinus and kubanensis seem to be found as winter visitors in India, these subspecies may also occur as passage migrants in Afghanistan. I have not been able to compare my specimens with adequate material, but as presumably they are all breeding birds I follow Vaurie in calling them ferghanensis.

None of the specimens are moulting. Several of the breeding males are in hen plumage, and two are in a plumage which is between that of a male and a female (and they are not moulting). One of these males, collected

more, and on the 12th some small flocks numbering up to 8 birds. All these birds were seen at localities which I had visited several times previously, so I presume the birds really did not arrive until the beginning of June. I found them in scrub or isolated conifers in glades in the forest at elevations of about 2600 m. But if they remain to breed there, I cannot prove it because we had already left by June 14. Two males collected had enlarged testes but not of maximum size. — During the last half of June I found a few around Stiewe, inhabiting scrub along the river or along the small brooks in the side valleys. At Pashki I heard only indications of the song, but at Stiewe they were in full song. In a female from the 19th the sex organs were enlarged but still far from the maximum. In a male from the same date the testes were large as were the *vesiculae seminales*. On our return journey the species was seen below Stiewe on July 23.

In July I found it rather common at altitudes between 2400 and 3400 m. in the Weran, Kokcha, and Sanglich valleys in Badakhshan. Around Miyan Deh (2600 m.) it was singing everywhere on July 1 from willows, scrubs, and sometimes from the bare rocks, and on the 18th I found it just as common in hedges around the fields at Tilli (2700 m.). In two males from the 18th the testes and *vesiculae seminales* were at their maximum size.

It breeds also in eastern Hazarajat where in the middle of June, 1949, I saw it in scrub or gardens at a few localities between Farakhulum and Panjao (3000–2700 m.). At Panjao it was rather numerous in scrub along the river. The breeding season seems to be earlier here than in Hindukush in the northeastern parts of the country for most of the males from the middle of June had testes at, or near, the maximum size (10×6) , and their vesiculae seminales were much enlarged, and three out of four females collected June 13–17 were in laying conditions. A nest in a Lonicera bush found on June 16 contained two eggs, and three on the next day. The female collected then would have laid a fourth egg but presumably not more.

I did not find the Common Rosefinch outside of these three regions: Nuristan, Badakhshan, and eastern Hazarajat. I have not been able to compare this topotypical series with material of any other subspecies, but VAURIE (1949, Am. Mus. Nov. 1424: 46) has recently examined a series of salimalii and found it to be distinct.

Four worn specimens from June in the above series are more greyish brown, less pure grey, on the upper parts than the specimens from September and October in fresh plumage. In the latter many body feathers were still growing.

A male collected on June 6 and with enlarged testes (8×5) is in hen plumage except for an indication of rose on the breast. Another male collected on September 16 had very small testes $({}^{1}/_{2} \times {}^{1}/_{2})$ and tawnier edges on the outer web of the secondaries than the other specimens. It is undoubtedly a young male of the year. It is moulting the body feathers, and the new ones are like those of a female and of birds in the first juvenile plumage.

I did not find the Sinai Rosefinch outside of the Bamian Valley where it was first found by Meinertzhagen, but Koelz found it in the mountains 150 miles westnorthwest of Bamian (Vaurie I. c.). I never saw it down in the broad main valley but only between 2600 and 3050 m. up in the small side valleys, especially where these narrow to form canyons.

The breeding season includes June for in three males collected June 5 and 6 the testes were at, or near, the maximum size (from 8×5 to 11×5). One of them had very enlarged *vesiculae seminales* and its mate, which was collected also, had enlarged sex organs but was still not in laying condition.

In the autumn I found the birds at the same rock walls as I found them in June, and only there.

(357). Carpodacus rhodochlamys grandis Blyth - Red-mantled Rosefinch Synonym: Carpodacus rhodochlamys bendi Koelz, Auk 66: 209 (1949 - Burchao Pass, Bend-i-Turkestan)

Pashki, Nuristan, 20. v.-3. vi. and 25. vii. 49.

Weight ♂3: 31, 32, 35, 36; ♀♀: 31, 35, 35

Wing 33: 89, 89, 90, 92; ♀♀: 87, 90, 91

I have not been able to compare this series with other material, but

male collected on May 21 is adult because its wing feathers are similar to those of birds which are apparently old ones, and the rest of its plumage is also as in old males except for a little area with brown feathers on the abdomen.

I observed the Red-mantled Rosefinch only at Pashki where it occurred at altitudes between 2500 and 3000 m. It was a scarce bird, however, which I saw only on a few occasions. First I saw on May 18, 1948, two single birds feeding on the floor in the *Pinus gerardiana* forest, then on the 20th and 21st and on June 3 a few pairs or single birds in open parts of the other coniferous forests, and on July 25 a single one in scrub at an elevation of 3000 m.

The breeding season seems to be rather late, presumably July, for in three females taken between May 20 and June 3 the sex organs are only slightly enlarged and in three males from the same period the testes had not fully reached the maximum size as in the male from July 25 in which the *vesiculae seminales* were also much enlarged.

(361). Coccothraustes coccothraustes humii Sharpe – Hawfinch Obeh, W Afghanistan
15. vii. 49. 3 8×5 we. 49 wi. 103

I have borrowed four adult males from the British Museum collected in Punjab and Rawal Pindi which Mr. F. C. Fraser kindly informs me agree well with the type of *humii* (from Attock, northwestern Punjab, March 1869) although they are not identical with it. A male from Topi Rak, Rawal Pindi, March 26, 1926, which apparently comes nearer to the type, agrees very well with my specimen from Obeh, except for a slightly paler crown.

I saw three or four Hawfinches on July 12 at an elevation of 2200 m. above Obeh and east of Herat. They were on slopes partly covered with bushes with red stone fruits. On the 15th I saw a small party again at the same locality.

The only previous record of the Hawfinch in Afghanistan is that of a specimen which was "evidently obtained by GRIFFITH on 21 April 1839, at

collect any Hawfinchs, and there is no pass, but he may have collected one a few days earlier when he passed the Bolan Kotal (Khojak) where it is known to occur. In such a case, however, it was not collected in what is now Afghanistan.

(362). Petronia petronia intermedia Hartert - Rock Sparrow

Petronia petronia intermedia Hartert, Nov. Zool. 8: 324 (1901 - Kashmir (type from Gilgit) and Kandahar)

Maimana, NW Afghanistan

27. vii. 49.
$$\stackrel{*}{\circ}$$
 2×1 we. 36 wi. 102

Panjao, Central Afghanistan

Darra-i-Shikari, Central Afghanistan

4. vi. 49.
$$3.7 \times 4 - 37 - 102$$

Bamian, Central Afghanistan, 20. ix.-6. x. 49.

The two specimens from June have a very worn plumage. That is also the case with the male from July 27, but it was moulting the wing feathers, and new body feathers were growing out. In the birds from September the postnuptial moult was nearly completed.

In the male collected on June 4 the testes were large and injected; in the female from the 24th of the same month the sex organs were far from the laying stage.

I have not compared the series with topotypical specimens of *intermedia* but both Meinertzhagen (1938: 506) and Vaurie (1949, Am. Mus. Nov. 1406: 2) refer the Afghan populations to this subspecies. It is probably a resident in the country although there may be some local movements down from the higher mountains during the winter for Swinhoe (1882: 113) found it to be only a winter visitor at Kandahar.

On June 2, 1949, I searched in vain for the Rock Sparrow at the Shibar Kotal where Meinertzhagen found it breeding. Two days later I found a single specimen in the Darra-i-Shikari on a small stony plain with a few

ridge at an elevation of about 3000 m., and finally on July 27 I found several flocks among boulders in a canyon at Maimana in northwestern Afghanistan.

(363). Petronia xanthocollis xanthocollis (Burton) – Yellow-throated Sparrow

Farah, SW Afghanistan

27. iv. 49. 3 7×4 we. 18 wi. 84 30. iv. 49. 3 7×4 — 20 — 86

The Yellow-throated Sparrow was until recently only known in Afghanistan from a specimen collected at Kandahar by St. John (1889: 170). Whistler (1945: 118) refers this specimen to the subspecies transfuga which inhabits Sind and Baluchistan. In 1937 Koelz, however, collected two specimens in Laghman between Kabul and Jalalabad which Vaurie (1949, Am. Mus. Nov. 1406: 5) refers to nominate xanthocollis.

Dr. Vaurie has had the kindness to examine my two specimens which he found to be nominate xanthocollis. "They are slightly paler than the two specimens from Laghman, but still they are not transfuga (type examined). In my opinion, transfuga is a rather poor intermediate, only the two extremes, nominate xanthocollis and occidentalis are well marked." Until more material is available I think it therefore best to recognize only nominate xanthocollis as occurring in Afghanistan.

The two males which are listed above were collected at Farah where some of this sparrow were seen among the *Passer domesticus* which had their nests in willows in the hotel garden. They were undoubtedly breeding there, for in both males the testes were large as in the active stage.

(364). Passer domesticus - House Sparrow

- b. Passer domesticus bactrianus Sarudny & Kudaschev

Synonym?: Passer griseigularis Sharpe, Cat. Birds Brit, Mus. 12: 313 (1888)

b. Faizabad, Seistan, 12.-14. iv. 49.

Weight 5 ♂♂: 21–24 (22,3); 4 ♀♀: 21–25 (22,2) Wing 5 ♂♂: 76–79 (77,9); 4 ♀♀: 73–78 (75,5)

Shin Dand, W Afghanistan

29. iv. 49. $3 \times 4 \times 2 = 22 = 75$ $2 \times 5 \times 3 = 22 = 76$

Tirpul, W Afghanistan

9. vii. 49. $3 \times 2 = 25 = 78$

Herat, W Afghanistan, 2.-3. vii. 49.

Weight 33 ad.: 23, 24; juv.: 23; 99 ad.: 24, 24, 25, 25; juv.: 21, 22 Wing 33 ad.: 76, 78; juv.: 75; 99 ad.: 74, 75, 76, 78; juv.: 67, 68

Obeh, W Afghanistan

13. vii. 49. $3 \times 1 \times 1 = 24 = 4 \times 2 = 26 = 76$ $4 \times 2 = 23 = 72$ $4 \times 2 = 24 = 72$ juv.

Kwaja Chisht, W Afghanistan

Panjao, Central Afghanistan, 14. vi. 49.

Weight 5 33: 24–27 (25,2); 99: 22, 23, 25 Wing 5 33: 77–79 (77,8); 99: 72, 73, 74

Bamian, Central Afghanistan, 6. ix.-15. x. 49.

Weight 24 33: 21-28 (24,8); 20 99: 23-28 (25,0) Wing 7 33: 76-80 (77,4); 8 99: 73-77 (75,0)

Gardez, E Afghanistan, 24. v. 49.

Weight 33: 22, 24, 25, 26; 9: 26Wing 33: 77, 78, 78, 80; 9: 76

Faizabad, Badakhshan, 10.-11. vii. 48.

Weight 33: 23, 25, 25, 27 Wing 33: 76, 77, 78, 78

For all the Afghan specimens of bactrianus:

Weight 46 ad. 33: 21-28 (24,4); 36 ad. 99: 21-28 (24,4)Wing 34 ad. 33: 75-80 (77,5); 25 ad. 99: 72-78 (74,9)

Taxanomy: The material comprises 33 adult males collected from the beginning of April to the beginning of July. These males can easily be divided into two series which both have white, not grey, cheeks. In one of

Am. Mus. Nov. 1406: 9) with all, but one, of the specimens collected by Koelz in Afghanistan.

It is also possible to separate the females in a lighter and a darker series, for in one female from Farah and three from Faizabad the upper parts are lighter, more greyish than in all the other females from the spring. Single individuals it would be difficult to determine, but in a series the two types are easily distinguished.

It is more difficult to decide to which subspecies the pale series (7 males) from Lower Farah Rud and Farah belongs. VAURIE had a single male from Farah. It was taken on October 30 and determined to be a representative of *persicus*. It may very well have been a migrant, and not a local breeding bird.

Dr. Vaurie has had the kindness to compare my light series with the material in the American Museum and he found that the series is just intermediate between *persicus* and *indicus* both in general colouration and in size. The colour of the cheeks is not always constant; it is whitish in some specimens of *persicus* and a little greyish in some from Seistan.

As indicated above I collected both light and darker (bactrianus) birds in southwestern Afghanistan. The specimens were taken in April at which time migration takes place, but I think that the light birds were the breeding birds of the district, for they did not occur in other parts of the country, and the two from Farah were collected at the nests; one of these as late as April 28, at which time, however, laying presumably had not yet begun.

Notes on *P. griseigularis* (Sharpe 1888, type locality Kandahar): As Kandahar is situated at the eastern border of the plains which occupy the southwestern part of the country, its breeding population may be intermediate between *indicus* and *persicus*, as are the birds in Seistan, or it may belong to either *indicus* or *bactrianus*. Mr. J. C. Fraser has had the kindness to send me the material in the British Museum collected by Swinhoe at Kandahar. It consisted of 6 males (not including the type of *griseigularis*) and 3 females taken between April 8 and 27, 1881. Five of the males are quite normal and compare very well with my dark series.

with this specimen "but is slightly deeper chestnut on the lesser wing coverts, and have a slightly more pronounced pale grey throat-bib". In Catalogue of Birds (12: 313) the type is marked immature which is repeated by later authors. As these two birds were collected on April 7 and 8, just when the first migrants arrive at Kandahar, they must, however, have been at least about one year old, and, if sexually active, have been collected just before the breeding season.

It is still uncertain, I think, how the breeding population of Kandahar looks, but because of the special condition of the type it would be unwise to use the name griseigularis for any subspecies.

There is in my collection no specimens which represent a mixture of male and female characters as in the types of griseigularis and enigmaticus.

Moult: The postnuptial moult starts at the beginning of July. In two of four females collected on the 2nd new body feathers are growing, and in some of the males and females that are badly worn and were collected from about the middle of the month, the moult of wing and tail feathers has begun. The moult is nearly completed in the numerous birds of both sexes, which were collected at Bamian between September 6 and October 15, but in most of them the outer primaries, a few tail feathers, and some body feathers were still growing.

Distribution: I found the House Sparrow breeding in all the provinces of Afghanistan visited, except in the central wooded parts of Nuristan, and in the highest desolate mountains. In Badakhshan it was not seen above altitudes of 2500–2600 m., but on June 10, 1949, I found it at 3100 m. west of the Unaï Kotal, and at several localities at high altitudes further west to Panjao (2800 m.) where it bred in rather large numbers. In the last week of July there were many large flocks between Qala Nau, Bala Murghab, and Maimana in northwestern Afghanistan, while it was less common at Andkhui and along the road from this town to Mazar-i-Sharif.

Migration: The House Sparrow leaves Afghanistan for the winter, except, perhaps on the plains around Jalalabad, and in the lower Kunar Valley, where some may stay, for on February 20, 1948, I saw a flock which consisted of about 30 individuals at Darontah, near Jalalabad, and the

on the 11th one of the House Sparrow; on the 14th the latter was rather numerous in the fields and in the ruins of an ancient town where there were several year-old nests. – During the spring of 1948 in Nuristan a flock consisting of about a dozen individuals passed as late as on May 3 up through the Pech Valley at Wama. They were undoubtedly migrating for they were the only House Sparrows which I observed during my stay in central Nuristan.

During the stay from September 6 to October 17, 1949, at Bamian I observed a very varying number of House Sparrows, on some days only a few, on other days several flocks, but I was not able to decide whether they represented the local population or a migration took place. As, however, most of the birds collected had still not finished the moult I think they were local birds. There may have been some decrease in their number in October. – Between October 23 and November 13, 1949, I saw no House Sparrows in Kabul.

Breeding: The males which arrived in Seistan about the middle of April had large, mostly injected testes which measured from 5×4 to 9×5 mm. In the females the sex organs were only slightly enlarged; the follicles small. There was no difference in the stage of development of the sex organs in the two series mentioned above. By the end of April the House Sparrows at Farah were busy at their nests, but some nests which were inspected on the 30th were still empty. – The testes were injected and at their maximum size (from 9×7 to 10×8 mm.) in four males collected on May 24 at Gardez, and a female from the same date was laying. On June 1 two nests at Siah Gird, Ghorband Valley, contained one and two eggs respectively, hence the laying seems to start in late May and the beginning of June. In the first week of July there were large flocks of adults and juvenals in the Hari Rud Valley.

In Afghanistan P. montanus is the house sparrow while P. domesticus mostly lives out in the fields or even far from human habitations. The nests are often built, many together, in willows or other trees. I think, however, that most nests in Afghanistan are placed in holes in conglomerate or loam walls, often in colonies of Columba eversmanni or Merons aniaster.

Bamian, Central Afghanistan, 15. x. 49.

Weight ♂: 33; ♀♀: 29, 29, 30, 30 Wing ♂: 81; ♀♀: 77, 79, 81, 81

In all the specimens from October 15 the postnuptial moult is completed. The male is much paler than males of nominate *hispaniolensis* in comparable plumage.

The Spanish Sparrow is recorded as a breeding bird from several localities in Afghanistan. During the breeding season I found it, however, only at Nau and Kachari in the upper Kokcha Valley, Badakhshan. The altitudes of these two places are 2750 and 2300 m. In the first place I saw on June 30, 1948, a flock in a willow scrub, and on July 3 I found a few around the other village.

During the spring of 1949 the first migrants arrived at Baqrabad in Seistan on March 10. On some of the following days a few passed; on the 24th a flock of about fifty in the fields, later on only single individuals were seen, the last on April 14. In the seven females collected between March 10 and April 14 the sex organs seemed to be quite inactive. In 6 males collected between March 10 and 24 the testes were very small with measurements from $1^{1}/_{2} \times 1$ to 3×2 , in one from April 12, however, the testes were injected, and the size had increased to 6×3 .

The birds collected at Bamian occurred in a mixed flock with *Passer domesticus*. The species was seen there only on October 15.

(366). Passer montanus dilutus Richmond - Tree Sparrow

Faizabad, Seistan

11. iv. 49.
$$\stackrel{?}{\circ}$$
 10×6 we. 25 wi. 77

12. iv. 49.
$$\bigcirc$$
 7×5 — 23 — 71

Shin Dand, W Afghanistan

Tirpul, W Afghanistan

9. vii. 49.
$$\sqrt[3]{1 \times 1/2}$$
 — 21 — 73 juv.

Panjao, Central Afghanistan

17. vi. 49. o we. 20 wi. 71

16. vi. 49. $3 \times 1 \times 1 = 20 = 66$ juv.

Kachari, Badakhshan

3. vii. 48. 3×7 we. 22 wi. 73

I have not been able to compare the series with topotypical dilutus (from Kashgar in Sinkiang), but Vaurie (1949. Am. Mus. Nov. 1406: 23) refers the Afghan populations to this subspecies while he considers pallidus (type locality East Iran) a synonym of dilutus. In two males, collected on August3 at Kachari in Badakhshan and on April 11 at Faizabad in Seistan, the feather fringes of the upper parts are slightly duller brown than in the other specimens. These two males agree with two specimens from Abr, east of Gurgan, Iran (Paludan 1940: 33). All four presumably represent intermediates between transcaucasicus and dilutus.

Of 18 adults and juvenals collected at Bamian between September 16 and October 15 seventeen specimens were moulting, only one female from the last mentioned date had completed the moult.

I found the Tree Sparrow nearly everywhere in Afghanistan. It is resident and lives in the towns and villages and in the nearby fields. Some local movements may take place.

Of the numerous observations a few may be of interest. In Nuristan this sparrow inhabits the Kunar Valley, at least up to Chigha Sarai, and the lower Pech Valley up to Gusalek, but I never saw it with certainty higher up in this valley, where I collected all the spring. On April 30, however, I saw at Wama a glimpse of a flock consisting of about a dozen sparrows which may have belonged to this species, but as a whole it must be said to avoid all the central Nuristan with its narrow valleys.

In the Kokcha, Warduj and Sanglich valleys, Badakhshan, it occurred up to an altitude of about 3000 m. At the same altitude it lived in eastern Hazarajat, where on June 10, 1949, I saw many at Diwal Kol (3000 m.), and in the middle of the month in a willow scrub along the river at Panjao.

It is said not to inhabit the lowland of southwestern Afghanistan, Cumming (1905: 688), however, writes that it "... was to be found in every building in the Mission Camp at Kuhak, in April 1905. I did not notice any in the month following, when they appear to have entirely deserted these buildings". I did not see it in and around the village Bagrabad where we

in July numerous in Herat, but I did not notice it farther up the Hari Rud Valley at Obeh and Kwaja Chisht.

On the drive through northern Afghanistan (July 1949) we found it in most towns and villages except in the desert-like country around Andkhui. During September and October I saw it at several villages in the range of Bamian.

(368). Passer moabiticus yatii Sharpe - Yate's Sparrow

Passer yatii Sharpe, Cat. Birds British Mus. 12: 322 (1888 - between De-kamran and De-doda, Seistan)

Lower Farah Rud, Seistan, 2.-30. iii. 49.

Weight 10 33: 14–17 (15,8); 6 99: 14–17 (15,6) Wing 12 33: 62–68 (65,3); 6 99: 62–64 (63,2)

I have not compared this series with other specimens, but they were collected not far from the type locality of yatii and Dr. VAURIE informs me that this "... seems to be a very well marked race; in comparable plumage it is only slightly paler above, but it is yellow below, and there is no trace of yellow on the under parts of the five specimens of P. m. moabitus..." in the American Museum.

Three of the females in the list above differ from the other three specimens by having darker greyish brown under parts and the yellow feather edges are also more pronounced. In these three females the oviducts were straight, so I presume they are subadults. In the males there is no difference in plumage, but a seasonal change in the colour of the bill. In those, which were collected at the beginning of March and which still had very small testes, the lower bill was light horn, the upper bill somewhat darker; in most of the males collected at the end of March the bill was black.

During March we observed some single birds and a few flocks consisting of up to half a hundred birds in the tamarisk scrub at the estuary of Farah Rud, and on one occasion in a scrub along the river at Baqrabad. In all the females the sex organs were in the inactive stage, but in the males the size of the testes increased from $1 \times 1/2$ mm. at the beginning of March to 6×4 at the end of the month.

Bamian, Central Afghanistan

13. ix. 49.
$$3.1 \times 1$$
 we. 34 wi. 119 bs. 16

Panjao, Central Afghanistan

Unaï Kotal, Central Afghanistan, 10. vi. 49.

Weight ♂3: 31, 33, 33, 34; ♀♀ ad.: 31, 31, 33; juv.: 30

Wing ♂: 115, 118, 119, 121; ♀♀: 109, 114, 114

Culmen 33: 14, 15, 15, 16; 99: 15, 15, 16

In eight adult males the black terminal spot of the fifth inner pair of rectrices measures: 4, 4, 5, 6, 6, 10, 10 (mean 6,3)

In 1949 Vaurie (Am. Mus. Nov. 1406: 27) recognized gaddi (type locality Luristan, southwestern Iran) and groum-grzimaili (type locality Bei Shan, eastern Tian Shan), and referred his Afghan specimens to gaddi. In a recent paper (1956, Am. Mus. Nov. 1814: 24), however, he synonymizes both these two names with alpicola (type locality Caucasus).

The male and female from September 13 and October 6 in the list above have nearly completed the postnuptial moult. In the male the outermost primaries are still growing as are several body feathers, in the female only a few feathers on the head are growing.

Although I made several excursions above the tree limit in the mountains of Nuristan I only once saw a flock of half a dozen Snow Finches. It was on May 18 above Pashki at an altitude of about 3600 m. When I revisited the same locality on July 25 it was not possible to find any. In the valleys on both sides of the Weran Kotal I searched in vain for this species. My only observation in Badakhshan was on July 16 of three specimens at an altitude of 3500 m. west of Sanglich.

On June 2 and 7, 1949, I saw a few at an elevation of 2700 m. in the valley just west of the Shibar Kotal. On the 6th we tried to go by jeep from Bamian to Band-i-Amir, but were forced by snowfall to return before we reached the Nil Kotal. We saw the first few Snow Finches already at 2600 m.

On June 10 I saw several in the Unaï Kotal from an altitude of 3100 m. and upwards in the narrow green areas in the bottom of the valley as well as on the slopes strewn with boulders.

A few were seen also in some localities between the Unaï Kotal and Panjao. One male collected on June 10 seemed to be in a sexually active stage. Its testes measured 10×6 , and the *vesiculae seminales* were much enlarged. All the other adult males and females from the beginning of June had reduced gonads and large brooding patches. The two juvenals collected on the 10th also show that the breeding season was generally over by the beginning of June.

(370). Montifringilla theresae Meinertzhagen - Theresa's Snow Finch Montifringilla theresæ Meinertzhagen, Bull. Br. Orn. Club 58: 10 (1937 - Shibar Kotal, Afghanistan)

Shibar Kotal, Central Afghanistan, 2. vi. 49.

Weight 33: 23, 25, 26; 99: 27, 27, 28Wing 33: 92, 93, 96; 99: 93, 94, 96

Bamian, Central Afghanistan, 20. ix.-6. x. 49.

Weight 8 33: 24–28 (25,5); ♀: 26; sex ?: 24

Wing 5 33: 95-96 (95,6); sex ?: 93

Unaï Kotal, Central Afghanistan, 10. vi. 49.

Weight 5 33: 24–26 (25,2); 9: 24 Wing 5 33: 94–96 (95,2); 9: 91

All the birds collected in June at the Shibar Kotal and Unaï Kotal are adults in the worn nuptial plumage described by Meinertzhagen. The specimens from September and October are in fresh plumage and differ very much from the birds collected in June. Above the greyish-brown feather edges partly conceal the dark-brown streaks, so that the back appears nearly as uniform grey-brown as the upper side of the head. Below the birds are whitish-grey with a brownish tinge, especially on the flanks. In the birds from June the whole under parts are more brownish. The black mask is fully absent in the fresh-moulted autumn specimens. These birds, therefore, must go through a partial moult, at least including parts of the head,

June and the autumn the whole bill is black. These three specimens undoubtedly are juvenals, the female at any rate, for it had a juvenile oviduct. Whether the other specimens are juvenals or adults cannot be decided, but the adults surely have a partial, prenuptial moult as well as the birds in their first year.

MEINERTZHAGEN found a "... considerable variation in the shoulder of the wing, in some specimens being almost pure white, and in others pale brown". I find the same amount of variation and can see no relation to either sex, age or season.

This Snow Finch was discovered as late as in 1937 by Meinertzhagen who collected it at the Shibar Kotal and at Bamian. Two years later Koelz (Vaurie, 1949. Am. Mus. Nov. 1406: 30) collected 8 specimens at the Sabz Kotal which is about 100 km. northwest of the Shibar. During the breeding season it is not known from outside Afghanistan, but in the winter it occurs in Transcaspia (Birds of the Soviet Union 5: 318). Its nearest relative is probably *M. blanfordi* (Tibet from Kashmir) with which it may be conspecific.

On June 2, 1949, I met the first individuals just east of the Shibar Kotal at an elevation of 2700 m. where some small springs on a slope gave rise to a green carpet of grass. We found also several on the slopes around the pass. They occurred in pairs, and no juvenals were seen. On August 7 we saw a flock in the pass consisting of 20–30 individuals.

On June 6 I saw a few flocks of half a dozen individuals in the high situated Shahidan Valley west of Bamian. During our stay in September and October at Bamian I saw it again in this valley, and at a certain locality in the higher part of the Bamian Valley. In both places they came in flocks to some springs. The flocks consisted mostly of a few dozen birds but in one case as many as 100–200.

It also occurs at the Unaï Kotal where on June 10 we saw the first at an elevation of 3100 m. It was seen also at several localities west of the Unaï Kotal along the road to Panjao, but I never saw it on my excursions around this place.

I am a little puzzled about the breeding season of this species. In three

(371). Sturnus vulgaris - Common Starling

a. Sturnus vulgaris nobilior Hume

Sturnus nobilior Hume, Stray Feathers 8: 175 (1879 - Kandahar)

- b. Sturnus vulgaris poltaratskyi Finsch
- b. Gusalek, Nuristan, 3. iii. 48.

Weight 5
$$33$$
: 71,5-78,7 (74,3); 5 99 : 72,2-80,2 (76,3) Wing 5 33 : 123-130 (126,4); 6 99 : 122-127 (124,7)

Bamian, Central Afghanistan

9. x. 49.
$$3 \times 1 = 2 \times 1 = 2$$

In all the specimens collected at Gusalek and Bamian the head and throat are purplish, the back pure green, and the edges of the under wing coverts and the axillaries pale brown; because of these characters I believe they must belong to the Siberian populations which usually are called *poltaratskyi* (or *menzbieri*).

In the afternoon of March 2, 1948, I saw the first flock of about two hundred starlings over the fields at Gusalek in Pech Valley, Nuristan. The next day still more arrived. On the 4th they had all left, and none was seen later. – On February 18, 1949, Madsen saw one in Kandahar. It was the only one we ever saw during all the time we spent in southern Afghanistan. – At Bamian I recorded three on October 9, 1949, and five on the 12th.

The local race in Afghanistan is *nobilior* which comes very close to *caucasicus*. It is, however, a very scarce breeding bird, for the only locality where I found it was Faizabad in Badakhshan, and there I saw on July 11, 1948, merely two birds in a garden. In Haibak where MEINERTZHAGEN (1938: 499) found a few breeding pairs, I looked in vain for it at the beginning of August.

Gusalek, Nuristan

Panjao, Central Afghanistan

12. vi. 49.
$$\stackrel{?}{\circ}$$
 10×15 — 71 — 131 $\stackrel{?}{\circ}$ 10×6 — 61 — 125

A huge migration of the Rosy Pastor passes through Afghanistan in spring and autumn, but a few remain to breed in the country, for Koelz collected two fledging females on July 15, 1937, at Khairabad between Faizabad and Jurm in Badakhshan. They still had nestling down clinging to the tips of the juvenile feathers, and the new rectrices and remiges were still in their sheaths (Marien, 1950, Jour. Bombay Nat. Hist. Soc. 49: 480). I saw it also at a time of the year when one would expect them to stay on their breeding grounds, but I found no proof of its breeding.

To give a picture of its status in Afghanistan I think it better to give my diary in some detail:

February to June 1948: In the Pech-Parun Valley, Nuristan, no migration was observed.

23. ii.-21. iv. 1949: Seistan, no migration observed, perhaps because it had not yet started.

May 1949: On the 5th flocks of 3 and 7 at Mukur. On the 30th flock of 25 in a poplar grove at Kabul.

June 1949: On the 12th a flock of 30–40 adults in a willow scrub at Panjao in Hazarajat. On the 17th a single adult was seen at the same locality. In a male collected the testes and *vesiculae seminales* were enlarged, in a female the sex organs were also enlarged, but far from the laying stage. The plumage of the male was quite fresh, that of the female was badly worn (incubation?). The fact that the birds occurred in flocks does not speak against breeding for they flock even during the breeding season (cf. M. K. Serebrennikov, 1931, Jour. Orn. 79: 29).

July 1948: Badakhshan. On the 5th a flock of 20 in bush at Sar-e-ab in the Kokcha Valley (elevation 1800 m.). When we arrived the next day at Iskan lower down the valley there were hundreds, perhaps thousands, in the walnut and mulberry trees in the village. On the 12th a flock of 25 in a village below Barak. The 16th three above Maghnaol (3000 m.). On the 18th a flock of about 25 at Tilli (2700 m.) where single birds were seen also on the two following days.

All these birds were adults and may have been migrants from Turkestan

together with three or four juvenals. Of this family party I collected the adult (a female) and one of the young. The plumage of the female is badly worn. The juvenal was fully fledged. On the 20th I saw about a dozen adults together with three or four juvenals. North of the main range I saw two flocks of adults and juvenals on the 24th between Qala Nau and Bala Murghab; several mixed flocks on the 25th at Bala Murghab; and the next day between Bala Murghab and Maimana half a dozen adults and later a large flock, which mainly consisted of juvenals.

August 1948: On the 5th I collected two at Gusalek in the Pech Valley, Nuristan, and on the 9th I recorded a flock of about fifty in the Kunar Valley below Chigha Sarai. There were only a few juvenals in the flock.

August 1949: In the trees along the road from Mazar-i-Sharif to Tashkurgan in Afghan Turkestan there were huge flocks of adults and juvenals on the 1st. On the 7th a rather large flock of mainly juvenals over Doab in the Surkhab Valley.

September-October 1949: Bamian. On several days between September 6 and October 15 I saw from a few up to 20–30 individuals. Most observations were made before September 22. Nearly all were juvenals. In one collected on September 22 the postjuvenile moult had just started with some of the secondaries. In the field I saw a few in mixed juvenile and adult plumage. In an adult male from October 15 the plumage is extremely worn. – They fed much on *Hippophaës* berries.

The investigations seem to show that the autumn migration starts early in July with the adults which a little later are followed by the juvenals. These dominate the latter part of the migration which is protracted until the middle of October. Some of the observations from June and the middle of July show perhaps that the Rosy Pastor breeds in central Afghanistan.

(374). Sturnus tristis tristis (Linné) – Common Myna (Indian Myna) Jalalabad, E Afghanistan

14. ii. 48. 3 2 we. — wi. 141

Gusalek, Nuristan

Haibak, N Afghanistan

2. viii. 49.
$$\ \ \, \stackrel{\bigcirc}{\downarrow} \ \ \, 5 \times 3 \ \ \, \text{we, 116 wi.} \ \ \, - \ \ \, \\ \ \ \, \stackrel{\bigcirc}{\downarrow} \ \ \, 4 \times 2 \ \ \, - \ \ \, 94 \ \ \, - \ \ \, 132 \ \, \text{juv.} \\ \ \ \, \stackrel{\bigcirc}{\downarrow} \ \ \, 5 \times 3 \ \ \, - \ \, 105 \ \ \, - \ \, (140)$$

The two adult males from July 3 are in worn plumage but a few new feathers are growing. The two adult females from August 2 were moulting remiges, rectrices, and body feathers. During skinning of the two juvenals from August 1 and 2 some growing body feathers were noticed. — I have not been able to compare the series with *naumanni* Dementiev (1957, type locality Deinau, Turkmenia).

The Common Myna is now distributed over most of Afghanistan except the central highland and the desert like plains in the southwest. It keeps strictly to the towns and villages and the cultivated fields surrounding them. Most individuals probably remain in the country all the year round. They were thus to be found in Kabul at an elevation of 1700 m. even during the severe winter.

On December 14, 1947, there were several in Jalalabad, and on February 20, 1948, I saw small flocks in the cultivated areas west of the town. On following days also some seen up through the Kunar and Pech valleys to Gusalek in Nuristan. When we returned in the first week of August it was also seen at several of the villages on this route. At Gusalek its number had increased considerably from we left the place on March 29 till we returned on August 1. Gusalek, at an altitude of 1000 m., was the last village in which we saw the Myna. We did not find it in central Nuristan or in Badakhshan between Weran Kotal and Faizabad.

At Kabul it occurred in the town proper, but it was more common in the surrounding villages. In January 1948 several Mynas gathered to roost under an old bridge in the bazar. North of Kabul I saw it at Charikar (October 18, 1949), but not in the Ghorband Valley. On our drives between Kabul and Kandahar we never saw it, but east of this route I saw a single bird on May 25, 1949, at Usman Khel, east of Gardez. When we passed Kandahar in February May, and June it was very numerous there

Shin Dand, W Afghanistan

Kwaja Chisht, W Afghanistan

19. vii. 49.
$$3 \times 1 = 70 = 141$$

Obeh, W Afghanistan

13. vii. 49.
$$\bigcirc$$
 2 $-60 - 142$ \bigcirc 1 $-63 - 143$

All the specimens above are adults. In the males the black of the lores extends behind the eye as is characteristic of the subspecies *kundoo*. The three birds from the middle of July were moulting the body feathers, and the male and one of the females had also started to moult the remiges.

When we left Gusalek in the Pech Valley, Nuristan, on March 29, 1948, the Golden Oriole had not yet arrived, but when we returned in the first week of August it was abundant there and lower down the valley. – Higher up the valley I heard and saw a few between April 24 and May 2 at Wama, and on May 14 and 15 at Pashki. These birds were probably migrants, but as late as June 15 I saw one at Kustachi between Pashki and Stiewe, so a few may remain to breed in the higher part of the valley.

In other parts of eastern Afghanistan I found it to be a common bird in the gardens of Kabul. In the last week of May, 1949, I heard it in the Logar and Wardak valleys south of Kabul, and on June 10 at Sar-i-Chashma (2600 m.) in the Maidan Valley.

In southern Afghanistan I saw it several times in Girishk and at Lash-kari-Bazar on May 4 and 5, 1949. They may have been migrants, but on the other hand it does breed in southern Afghanistan, for on June 26 I heard several in Kandahar and in some scrub along Arghandab.

In western Afghanistan there were a few in the last days of June, 1949, in a poplar plantation at Shin Dand. In the Hari Rud Valley I did not hear it at Herat but in the middle of July there were a few in the lower part of the side valley at Obeh and several at Kwaja Chisht.

(377). Dicrurus macrocercus albirictus (Hodgson) – King Crow Wama, Nuristan, 20. iv.-1. v. 48.

Weight ♂3: 39, 40, 44; ♀: 41 Wing ♂3: 143, 143, 145; ♀: 139 Tail ♂3: 166, 172, 173; ♀: 152

When we left Gusalek in the Pech Valley, Nuristan, on March 29, 1948, the King Crow had not yet arrived, but on our return in the first week of August it was rather numerous and occurred in family parties. Now it was seen also at several localities farther down the valley as well as in the Kunar Valley. – At Wama in central Nuristan the first arrivals came on April 20, and from May 1 they occurred in pairs in the oak forest. The sex organs in the newly arrived birds were rather enlarged. In one of the males the testes measured 14×6 and were injected. – At Pashki and Stiewe higher up the valley it was not seen.

Outside Nuristan and the Kunar Valley I saw only on May 26, 1949, a single bird in the lower part of the valley leading from Gardez to Tera Kotal.

(379). Pyrrhocorax pyrrhocorax docilis (Gmelin) – Red-billed Chough Stiewe, Nuristan

Maimana, NW Afghanistan

27. vii. 49.
$$3 \times 4 \times 2 - - - 54$$

 $9 \times 4 - - - 50$

Bamian and Darra-i-Shahidan, Central Afghanistan, 13. ix.-13. x. 49.

Weight ♂: 314; ♀♀ ad.: 262, 263; subad.: 253, 283 Wing ♂: 305, 309, 313; ♀♀ ad.: 282, 288, 292, 293, 297; subad.: 274, 281, 283

Bill from skull 33:53,53,55; 99 ad.: 46, 46, 48, 48; subad.: 46, 47

The female from June 17 and the male from the 22nd are both moulting the body feathers, remiges, and rectrices. The female had an incubation patch. Also the pair collected on July 27 are moulting remiges and body feathers. Even the adults from September and October, except a male

compare my specimens, but they seem to confirm the intermediate status of the Afghan populations, for the wing coverts, except the greater ones, have a bluish gloss with a faint greenish tinge, while the greater wing coverts have a greenish gloss.

On March 15, 1948, I saw a single Red-billed Chough at Gusalek in the Pech-Parun Valley, Nuristan, and on May 17 a flight of six at Tusum above Pashki, but first at Stiewe (2600 m.) I was at its breeding grounds. There I saw it regularly and in pairs in the latter half of June. A pair presumably had their nest together with *Columba livia* on a vertical rock wall.

North of the main range, in Badakhshan, I found it in July at several localities at elevations from 2500 m. to 3500 m. in the Weran, Kokcha, and Sanglich valleys. On the 16th I saw a family party of four in a field at Sanglich (2900 m.). The fully fledged young were still fed by one of the parents.

During the summer months I further saw it at: Panjao in Hazarajat, flights of a dozen birds on June 12 and 13, 1949; at Obeh, a single bird high over the side valley on July 17; and in northern Afghanistan between Qala Nau and Bala Murghab, a few on July 24 in a canyon along a southern tributary to Murghab; at Maimana, half a hundred in a canyon on July 27; at Haibak, four on August 4; and at Doab, a few below and above this village in the Surghab on June 4.

During winter and early spring 1949 in southern Afghanistan I saw several large flights around Kandahar on February 20; about 20 birds in the foot hills east of Farah on the 21st; and a dozen birds at Dilaram, between Farah and Girishk, on April 4 and 5.

At Bamian, September 6-October 17, 1949, we saw a few birds together or flights counting up to hundreds of birds. During the first part of our stay they were seen only at higher elevations, not down in the main valley, but after the middle of September they became more and more common there, coming down from the surrounding mountains to feed in the fields during the day and returning in the afternoon to their roosting places in the mountains.

Vaurie (1954, Am. Mus. Nov. 1658: 6) showed that the Alpine Chough can be divided into two subspecies, a small western (nominate graculus) which is distributed from Europe over Asia Minor and Caucasus to southern Caspian districts, and a large eastern race which is distributed from Near East over Zagross, Khorasan, and eastwards. As this last subspecies probably includes Syria it must be named digitatus (type locality Syria), not forsythi as it is usually called.

The specimens in the list above confirm the large measurements of the eastern populations for which VAURIE gives a wing length of 280–289 in the males, as against 255–279 in nominate graculus.

In Nuristan I saw a single Alpine Chough at Wama on April 23, 1948, and at Pashki I observed it a few times, especially when I visited the regions above the limits of forest (at about 3100 m.). On May 29 a flock of 50 birds were soaring high in the air and shortly after I saw a pair on a rock at an elevation of 3300 m. One of the pair seemed to beg for food. – At Stiewe, which is at an elevation of 2600 m. and above the limits of forest, it was rather numerous and much more common than the Red-billed Chough, and contrary to this it always appeared in flights of 10–15 birds which were searching for food along the hill sides.

In Badakhshan, north of the Hindukush, I found it, in July 1948, to be rather common at elevations between 1900 and 3500 m. in the Weran, Kokcha, Warduj, and Sanglich valleys. In one of the villages here I saw some perch in the mulberry trees, probably to eat the fruits. — Neither in Nuristan nor in Badakhshan was I able to find any differences in habitat preference of the two choughs.

On June 7, 1949, I saw six choughs in the upper Ghorband Valley which I determined to be *graculus*. If my identification was right, and I think it was, it represents my only observation from outside Nuristan and Badakhshan.

(381). Garrulus lanceolatus Vigors – Lanceolated Jay Gusalek, Wama, and Pashki, Nuristan, 29. ii.–21. v. 48.

Weight 7 ♂♂: 88,0-104,4 (96,2); 7 ♀♀: 84,2-102,0 (94,3)

I saw one carrying nesting material. In six males collected between February 29 and May 1st the testes increased from 3×1 to 10×4 . In six females from the same period there was a similar increase of the sex organs, but the female collected on May 1st was still far from the laying stage. – At Pashki, within the zone of coniferous forest, I saw three jays only, and they were all seen on May 21. First I found a pair among the few oak trees which were intermixed the lower part of the *Cedrus* forest. I collected the male and, shortly after I had returned to our camp in the bottom of the valley I found a jay there also, the only one we ever saw there during the five weeks' stay. It was a female, and may have been the mate of the bird first collected. In the male the testes measured 13×6 , and in the female the largest follicle had a diameter of 3 mm., but the oviduct was still far from the maximum stage.

(382). Pica pica bactriana Bonaparte - Magpie

Pica bactriana Bonaparte, Conspectus Genera Avium 1: 383 (1850 – Kandahar) Stiewe, Nuristan

17. vi. 48.
$$3.5 \times 2$$
 we. 220 wi. 215 tl. 270 subad.

Wardak, E Afghanistan

26. v. 49.
$$\sqrt{3}$$
 11×6 - - - 210 - 275

Tangighori, E Afghanistan

30. v. 49.
$$3$$
 — — — 214 — 278

Kabul

11. viii. 49.
$$3 \times 4 \times 2 = 220 = (205) = - \text{subad}$$
.

Lashkari-Bazar, S Afghanistan

5. v. 49.
$$9.8 \times 5$$
 — — — (188) — 250 subad.

Obeh, W Afghanistan

16. vii. 49.
$$\bigcirc$$
 4×2 — 216 — 194 — 224 juv.

Andkhui, N Afghanistan

29. vii. 49. 0
$$-235 - 200 - 251$$

Panjao, Central Afghanistan

14. vi. 49.
$$\bigcirc$$
 — 165 — — — juv.

15. vi. 49.
$$\bigcirc$$
 10×5 — 182 — 197 — (260)

Bamian, Central Afghanistan, 18. ix.-8. x. 49.

man, Central Aighannstan, 10. 14. 0. 4. 10.

characters ascribed to bactriana by HARTERT and STEINBACHER (1932–38: 13) are found in this series.

A male collected on August 11 is in postnuptial moult. In the specimens collected between September 18 and October 8 the postjuvenile or postnuptial moults were not finished.

On December 14, 1947, I saw a single Magpie at Jalalabad. It may have been a winter visitor, for on all my other trips between the Khyber Kotal, Jalalabad, and Kabul I never saw a Magpie before we had passed the Lataband Kotal just east of the capital.

During the last half of June, 1948, I saw a few around Stiewe in the upper Parun Valley, Nuristan, but I did not find it in the lower valley where I collected during all the spring.

During July, 1948, it was seen at several localities in the Kokcha, Warduj, and Sanglich valleys in Badakhshan at elevations between 2700 and 1500 m., but not in the broad valley from Jurm to Faizabad.

It is found all the year round in and around Kabul, and we saw it at several localities on our drives through the valleys north and south of this town. In May it was seen at Usman Khel and in the valley south of Tera Kotal in the province of Gardez.

In June, 1949, I saw several between Unaï Kotal and Panjao in Hazarajat. On June 13 a nest at Panjao contained four fledglings. The nest was built two metres above the ground in a *Hippophaës* bush. On the 15th another nest contained young of the same age. This nest was built in a willow four metres above the ground.

The Magpie is rather scarce in southern Afghanistan. I noticed a single bird only on our drives through the cultivated areas around Kandahar. But in the beginning of May, 1949, I found a few in scrub and trees along the Helmand River at Lashkari-Bazar, south of Girishk. We did not see it in Seistan, at Farah, or at Shin Dand.

In July, 1949, I found it to be common at Herat and the villages in its vicinity. It was also seen higher up the Hari Rud Valley to east of Obeh and in the juniper scrub in the Sauzak Kotal.

In northern Afghanistan I did not see the Magnie north of the Sauzak

(383). Nucifraga caryocatactes multipunctata Gould – Nutcracker Pashki, Nuristan, 8. v.-12. vi. 48.

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Weight 33 ad.: 165, 176, 177; juv.: 164, 168, 170
$\partial \text{ ad.: 155, 158, 164, 173; juv.: 153, 161}$

Wing 33 ad.: 200, 201, 212; juv.: 202, 203, 204
$\partial \text{ ad.: 195, 195, 202, 206; juv.: 201, 203}$

Tail 33 ad.: 144, 148, 159; juv.: 155, 158, 158
$\partial \text{ ad.: 144, 155, 155; juv.: 150, 155}$

Distension of white fleck at the outer rectrices
$\frac{3}{3}$ ad.: 57, 58, 78; juv.: 53, 54, 55
$\partial \text{ ad.: 41, 43, 48, 50; juv.: 51, 63}$

Bill from skull
$\frac{3}{3}$ ad.: 43, 45, 47; juv.: 36, 40, 40
$\partial \text{ ad.: 39, 41, 41, 44; juv.: 35, 36}$
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The Nutcracker occurs only in eastern Afghanistan where I found it in Nuristan. In April 1948 a few were seen at Wama in the Pech Valley. During May and June it was much more common higher up the valley, at Pashki, where it lived all the way from the hazel scrub in the bottom of the valley through the various kinds of coniferous forests up to the tree limit. On one occasion I even saw a single bird at some rocks at an altitude of 3300 m. which was above the tree limit.—It was not seen at Stiewe which lies high above the border of the forest.

The breeding season seems to start very early in the year for when we arrived at Pashki in the beginning of May it was already over, and some of the adult birds were in the postnuptial moult, and the young birds were moulting the juvenile plumage.

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(384). Corvus monedula soemeringii (Fischer) – Jackdaw Haibak, N Afghanistan, 2. viii. 49.
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Weight 3: 215; 39 juv.: 184, 195, 202, 203, 217 Wing 39 juv.: 230, 231, 231, 231, 234, 240

The adult male is in postnuptial moult, and all the juvenals are also moulting. VAURIE (1954, Am. Mus. Nov. 1668: 15) refers a series of breeding birds from northern Afghanistan to soemeringii.

The Jackdaw breeds in Afghanistan only north of the central mountain

(385). Corvus frugilegus frugilegus Linné - Rook

The Rook is only a winter visitor to Afghanistan. During December 1947 and January 1948 and 1949 I saw large flocks, counting up to several hundreds, around Kabul. On February 21, 1948, I saw a single bird at Jalalabad, and on February 16, 1949, several flocks in the Logar Valley and further south along the road to Mukur. From this town down to Kandahar the Rook was less numerous. In the morning of the 19th many black "crows", presumably rooks, passed in southern direction over Kandahar.

(386). Corvus macrorhynchos intermedius Adams – Jungle Crow Gusalek, Wama, Pashki, and Stiewe, Nuristan, 27. ii.-22. vi. 48.

Wing 8 33:331-348 (341,3); 99:6 ad.: 315-335 (328,0); subad.: 305 Tail 7 33:210-230 (218,4); 99:6 ad.: 192-222 (207,0) Difference central/outer rectrices 7 33:24-56 (41,3); 6:99:34-49 (41,7) Bill from skull 8 33:56-59 (57,9); 99:6 ad.: 53-57 (54,5); subad.: 54

The series consists of 15 specimens which all, except one, seem to be adult. The exception, a female collected on June 22, was in badly worn plumage and moulting the rectrices and secondaries. Its oviduct was juvenile, and the ovary contained quite small follicles. Presumably it is a one year old bird. None of the other specimens was moulting.

I have not compared the series with material from Kashmir (type locality of *intermedius*), but the birds undoubtedly belong to *intermedius*. The colour of the base of the nape feathers is pale grey. The back is glossy green.

The Jungle Crow occurs only in the wooded parts of eastern Afghanistan where I found it to be rather abundant in the Pech-Parun Valley in Nuristan. It occurred at all our stations from Gusalek to Stiewe and lived at all elevations from the bottom of the valley up to the tree limit.

They were in pairs or small flocks when we arrived at the end of February, but the breeding season does not seem to begin until the end of April. In four males collected between February 27 and April 25 the testes increased from 3×4 to 11×8 . In one specimen from April 27 they were fully developed and measured 15×12 . This male was collected together with its mate

in a walnut tree. It was built of rather thin sticks and lined with hairs and other soft material.

Its voice reminded me in some degree of that of *Corvus corone*, e.g. the familiar *kra-kra-kra* is often heard, but besides this note it has several others which I do not know from the crow.

- a. Corvus corone orientalis Eversmann Carrion Crow
- b. Corvus corone sharpii Oates Hooded Crow

Corvus sharpii Oates, Fauna Brit. Ind. Birds 1: 20 (1889 - Siberia, Turkestan, Afghanistan, and a portion of India. Type from Nurdan, NWF-Province)

a. Saroti Kotal, E Afghanistan

Sar-i-Chashma, Maidan, E Afghanistan

10. vi. 49.
$$3 \times 7 \times 4 = 345 = 206 = 55$$

Kwaja Chisht, W Afghanistan

b. Qaisar, NW Afghanistan

26. vii. 49.
$$3 \times 4 = 338 = -52$$

 $3 \times 4 \times 2 = 332 = 198 = 52$
o = 316 = 180 = 49 juv.

The Carrion Crow is the breeding crow of most parts of Afghanistan, but the Hooded Crow occurs along the northwestern border of the country and the two races form here a zone of hybridization.

Observations during the breeding season.

South-eastern Afghanistan: On May 23-26, 1949, I saw some single birds and pairs of Carrion Crow between Tera Kotal and Gardez, and near the Saroti Kotal, east of Gardez. The specimen collected and the voice of the black crows observed showed that they were all Carrion Crows, not the

Northeastern Afghanistan: I did not find the Carrion Crow in Nuristan where the Jungle Crow was abundant, but as soon as we crossed the Hindukush to Badakhshan we found it during July 1948 at many localities in the Kokcha, Warduj, and Sanglich valleys at altitudes below 2700 m. The Jungle Crow was never seen in this province.

Southern and western Afghanistan: We did not see any crow during our drives in May and June between Kandahar and Farah, nor during our stay at Shin Dand where we collected June 28-30, 1949. There was also none in the Hari Rud Valley between the Iranian border and Herat, but on July 11 and 12 I saw and heard two Carrion Crows in the side valley at Obeh at an altitude of about 1900 m. Further up the main valley the crows got more abundant. On the 18th I saw several along the road to Kwaja Chisht, among them a flock of about 20 individuals which all looked pure black. The next day I saw 40 crows which were searching for food on a meadow along the river. They all seemed to be pure orientalis but when I got them to fly off I saw that in a single one the black head contrasted with the greyish black body feathers. In the three adult specimens collected at this locality the plumage was badly worn, and they were moulting the wing and tail feathers. They were all intermediates between the Carrion and the Hooded Crow but closest to the former. One specimen had some grey feathers on breast and back. In another the grey bases of the nape feathers were slightly more developed than in pure orientalis, and the feathers of the abdomen were partly greyish black. In the third specimen the greyish bases of both nape and breast feathers were more distended than in pure orientalis. - On July 22 I saw a flock of a dozen crows in the valley south of the Sauzak Kotal, northeast of Herat. They all looked black. All the crows which I saw in the Hari Rud system were pure Carrion Crows or intermediates very close to it, not a single real grey crow was seen.

Northern Afghanistan: Vaurie (1954, Am. Mus. Nov. 1668: 19) examined large series from Afghanistan, and found that the populations of Afghan Turkestan west of the Surkhab, those of the Bend-i-Turkestan, and those of the Paropamisus all the way to the border of Iran showed all sorts of intermediates. During July 1949. I travelled through some of these

20 Hooded and three Carrion Crows. A little later a few, mostly grey, crows were observed. East of Qaisar we collected four specimens (of which only three are in the list above). Three were pure grey, one showed a darkening of the grey feathers on the back and of the undertail coverts. On the 28th we saw in all eight crows between Maimana and Andkhui, and they were Hooded Crows, but in one of them the grey colour was a little dark. On the next day there were a few grey crows in the vicinity of Andkhui, one of them was a young one, smaller than the others. They flew for some time in flock with some *Corvus ruficollis*. I am not quite sure about the occurrence of Carrion Crows at Andkhui, but I think that all the black "crows" we saw there were *Corvus ruficollis* (and *C. subcorax*?). No crows were seen on the last part of our drive from Andkhui over Aq Chah and Mazar-i-Sharif to Tashkurghan, but at Haibak we saw again several Carrion Crows. At Doab, north of Darra-i-Shikari (June 3, August 6, 1949), also this form.

Observations during the winter.

When on February 22, 1948, we drove up the Kunar Valley to Chagha Sarai, single black crows or small parties were common in the cultivated fields. Presumably, they were Carrion Crows, but it cannot be excluded that they may have been Jungle Crows which breed in the neighbouring wooded mountains. Not a single one was seen when we returned by the same road on August 9.

From the middle of December 1947 to the middle of February 1948 and during January 1949 I saw on several occasions a few Hooded Crows, but never a Carrion Crow, in and around Kabul. – On February 16, 1949, a few Hooded Crows were seen on a drive through the Logar Valley and further south until Mukur, and on the 20th one again west of Kandahar.

While my observations in northwestern Afghanistan supply some information from one of the more unknown regions in Meise's valuable study (1928, Jour. Ornith. 76) on these crows, the same was not the case as to Seistan. Cumming (1905: 686) writes about the Hooded Crow: "This Grey Crow is found mostly in the tamarisk jungle of Seistan in twos and

and the Carrion Crow is listed neither as a winter visitor, nor as a breeding bird. During my stay on the Lower Farah Rud from the end of February to medio April, 1949, I did not see a Hooded Crow, and the Carrion Crow I did not identify with certainty, but on March 28–30 I saw a few black crows which most likely were *C. orientalis*.

As to the Carrion Crow shot by Cumming and mentioned above, Whist-LER (1944: 512) suggests that it might have been a Jungle Crow. I think, however, that this probability is very small, because the Jungle Crow in Afghanistan seems to be restricted to the eastern wooded mountains.

29. vii. 49.
$$3 \times 3 \times 1^{1/2} - 395 + 201 + 63$$

 $3 \times 1^{1/2} - 395 + 201 + 63$
 $9 \times 374 + 204 + 59$
 $9 \times 6 \times 3 + 365 + 201 + 55$

These four specimens are in the postjuvenile moult. I have not been able to compare with other juvenals of ruficollis. Compared with three Danish C. c. corax in juvenile plumage they are not only very small, but the glossy feathers are a deep blue, not purple, and the colour of the under parts is blackish brown, not earth brown.

Three of the specimens were taken from a flock of 15 in the sun burned fields around Andkhui. A few smaller flocks were also seen. Several other black "crows" in the vicinity could not be identified, but it was my impression that two species were represented.

The Brown-necked Raven was not previously recorded from northern Afghanistan, but since it inhabits Transcaspia and parts of Turkestan it is not surprising to find it in this desertlike corner of northwestern Afghanistan. Whether it occurs in other parts of the country is still an open question although Swinhoe (1882: 111) and St. John (1889: 168) list this species as well as C. corax as common breeding birds in the province of Kandahar in southern. Afghanistan: White Ep. (1944: 512), however, examined their

(389). Corvus corax subcorax Severtzov - Raven

Tashkurghan, N Afghanistan

1. viii. 49. 36×4 wi. 465 bs. 81

Bamian, Central Afghanistan, 9. ix.-10. x. 49.

Wing 33 ad.: 440, 454, 465, 483; subad.: 443

우우: 429, 433, 439, 441, 449

Bill from skull

ੈਂਡੇ ad.: 75, 76, 77, 81; subad.: 73; ♀♀: 66, 67, 68, 69, 70

Most of the adult birds are in the postnuptial moult. In three females collected between September 30 and October 10 this moult is completed. The wing length seems to be intermediate between *tibetanus* (Himalayas from Kashmir) and *subcorax* (= *laurencei*; Palestine to Turkestan and northwestern India), but closest to this last subspecies.

The Raven is widely distributed in Afghanistan, but occurs in varying number in the different provinces.

Northeastern Afghanistan: It seems to be very rare in Nuristan where we saw single birds on March 20 at Gusalek, and on April 9 and 10 at Wama in the Pech Valley. It was just as scarce in those parts of Badakhshan which we visited during July for I saw one Raven only, namely on the 15th between Zebak and Sanglich.

Eastern Afghanistan: During December and January it was seen at several localities between the Khyber Kotal and Kabul, and during the winter months it was not uncommon around Kabul where, however, I did not notice it during the spring and summer. – On May 23 and 26, 1949, I saw a few in the southern part of the Logar Valley, and several around the Tera Kotal.

Southern Afghanistan: On February 20–22 I saw several Ravens between Kandahar and Farah. Most of them were presumably stragglers from the mountains for on our drives in April, May, and June we saw very few along this road. – During our stay on the Lower Farah Rud in Seistan we saw some few black "crows" which may have been Ravens. The last four occurred on April 16. It is at any rate very scarce in Seistan.

Western Afghanistan: It was rather rare also in this part of the

Central Afghanistan: In the middle of June, 1949, I saw a few between the Unaï Kotal and Panjao in eastern Hazarajat, and on August 7, September 5, and October 18 around the Shibar Kotal. I found the Raven most common, however, in the Bamian Valley and in the valleys to the west, in the direction of Band-i-Amir. On a visit in the beginning of June it occurred in pairs or in family parties, in September and October most in small flocks which came down to the harvested fields during the day and withdrew to the mountains for the night.

V. Tentative list of Afghan birds

Our knowledge of the Afghan bird fauna is still very fragmentary. Undoubtedly future collecting will bring to light several species not yet recorded from the country, and in particular one might desire that they will provide a better basis for a consideration of the status of individual species in Afghanistan than is possible at present.

On this background it may seem premature to present a check-list of the Afghan bird fauna when the list is known to be subject to criticism on many points and when it may be out of date within a short time — one might even hope this to be so. When after all I have decided to compile the list a number of circumstances have been used as an excuse. First and foremost I can imagine that it may be a help to persons who in connection with other research may want quick information on what we to-day believe is the status of a given species in Afghanistan and who would otherwise have to consult the observations scattered throughout the literature.

My conclusions are based partly on my own experiences in Afghanistan and partly on the relevant literature; in case of doubt the status of a given species in the neighbouring countries has also been considered. Concerning this point certain approximations have been made as to Seistan. The status of the species which have been recorded from Afghan Seistan is often based upon Sarudny's comprehensive studies in Iranian Seistan, just beyond the border. On the other hand species which have been recorded from Iranian but not from Afghan Seistan were not included in the list

book it is hoped that the check-list may prove useful in conjunction with Stuart Baker's and Whistler's handbooks of Indian birds and provide a certain measure of guidance such that people living in Afghanistan may become interested in the subject and thereby contribute much towards an increased knowledge of the ornithology of the country.

In spite of shortcomings and misinterpretations of the often scanty information it is hoped that after all the list may prove useful in serving some of the purposes which have been mentioned.

The terminology used in the list to characterize the status of the species can hardly cause misunderstanding. It should perhaps be pointed out that breeding birds may have different status, and that they may be characterized as

- residents: the species occur in the breeding area throughout the year or migrate at most into adjacent districts, e. g. leaving the high ground during the winter,
- 2. summer visitors: typical migrants which leave the breeding area during the winter,
- 3. breeding: this term is used when our present knowledge is insufficient to assign a species to categories 1 or 2.

Podicipitiformes

Podicipidae

- 1. Podiceps ruficollis capensis Little Grebe Breeding Seistan. Passage migrant. Winter visitor
- 2. Podiceps cristatus cristatus Great Crested Grebe Breeding Seistan? Passage migrant. Winter visitor.

Pelecaniformes

Pelecanidae

3. Pelecanus onocrotalus - White Pelican Passage migrant. Winter visitor? (Seistan).

Phalacrocoracidae

4. Phalacrocorax carbo sinensis - Common Cormorant
Presumably breeding Seistan and Badakhshan. Wintering Seistan.

- 8. Ardea purpurea purpurea Purple Heron Passage migrant. Breeding Seistan?
- 9. Egretta alba alba Large Egret
 Passage migrant. Winter visitor. Breeding Seistan?
- 10. Egretta garzetta garzetta Little Egret One record. Breeding Seistan?
- 11. Nycticorax nycticorax nycticorax Night Heron Breeding. Winter visitor.
- 12. Ixobrychus minutus minutus Little Bittern
 Sporadically breeding (?). Winter visitor. Passage migrant.
- 13. Botaurus stellaris stellaris Bittern
 Breeding. Passage migrant. Winter visitor.

Ciconiidae

- 14. Ciconia ciconia asiatica White Stork Scarce passage migrant.
- 15. Ciconia nigra Black Stork
 Passage migrant. Breeding Hazarajat?

Threskiornithidae

- 16. Plegadis falcinellus falcinellus Glossy Ibis Passage migrant. Breeding N and SW?
- 17. Platalea leucorodia leucorodia Spoonbill Passage migrant. Winter visitor. Breeding Seistan?

Phoenicopteriformes

Phoenicopteridae

- 18. Phoenicopterus ruber roseus Flamingo Scarce passage migrant. Winter visitor. Breeding Ab-i-Istada.
- 19. Phoeniconaias minor Lesser Flamingo Rare straggler.

Anseriformes

Anatidae

- 20. Cygnus cygnus Whooper Swan Winter visitor Seistan.
- 21. Cygnus olor Mute Swan
 Breeding Seistan. Winter visitor.
- 22. Anser anser Grey Lag Goose

- 27. Anas platyrhynchos platyrhynchos Mallard Breeding. Passage migrant. Winter visitor.
- 28. Anas querquedula Garganey
 Breeding Seistan? Passage migrant.
- 29. Anas crecca crecca Teal
 Breeding? (Seistan, Danaghori). Passage migrant. Winter visitor.
- 30. Anas falcata Falcated Teal Straggler.
- 31. Anas acuta acuta Pintail
 Passage migrant. Winter visitor.
- 32. Anas angustirostris Marbled Duck Breeding Seistan, Afghan Turkestan. Passage migrant.
- 33. Anas penelope Wigeon Passage migrant. Winter visitor.
- 34. Anas strepera Gadwall
 Passage migrant. Winter visitor. Breeding? (Seistan, Hari Rud).
- 35. Anas clypeata Shoveller
 Passage migrant. Winter visitor. Breeding Seistan?
- 36. Netta rufina Red-crested Pochard
 Passage migrant. Winter visitor. Breeding Seistan; Hari Rud?
- 37. Aythya ferina Common Pochard Passage migrant. Winter visitor.
- 38. Aythya fuligula Tufted Duck Passage migrant. Winter visitor.
- 39. Aythya nyroca White-eyed Pochard
 Passage migrant. Winter visitor. Breeding Seistan, Hari Rud.
- 40. Bucephala clangula clangula Goldeneye Passage migrant. Winter visitor.
- 41. Oxyura leucocephala Stiff-tailed Duck (White-headed Duck)
 Breeding Seistan. Scarce passage migrant. Winter visitor.
- 42. Mergus albellus Smew Scarce passage migrant. Winter visitor.
- 43. Mergus merganser orientalis Goosander Breeding Wakhan.
- 44. Mergus serrator Red-breasted Merganser Rare winter visitor.

Falconiformes

Accipitridae

45 El Disab missed Vita

- Breeding Nuristan. Passage migrant. Winter visitor.
- 49. Buteo rufinus rufinus Long-legged Buzzard Breeding Safed Koh (E. Afgh.), Nuristan, ? Badakhshan. Passage migrant. Winter visitor.
- 50. Buteo buteo vulpinus Steppe Buzzard Passage migrant.
- 51. Hieraaëtus fasciatus fasciatus Bonelli's Eagle One record. Status unknown.
- 52. Hieraaëtus pennatus pennatus Booted Eagle Status uncertain. Breeding Nuristan?
- 53. Aquila chrysaëtos chrysaëtos Golden Eagle Status uncertain. Breeding?
- 54. Aquila heliaca heliaca Imperial Eagle Winter visitor.
- 55. Aquila rapax (vindhiana) Tawny Eagle One sight record only.
- 56. Aquila nipalensis (orientalis) Steppe Eagle Passage migrant. Winter visitor?
- 57. Aquila clanga Greater Spotted Eagle Status uncertain. (Passage migrant. Winter visitor).
- 58. Haliaeetus leucoryphus Pallas's Fishing Eagle Status uncertain. Probably winter visitor to W Afghanistan.
- 59. Haliaeetus albicilla White-tailed Eagle Presumably passage migrant and winter visitor.
- 60. Aegypius monachus Black Vulture
 Status uncertain, presumably passage migrant and winter visitor. Breeding?
- 61. Gyps fulvus fulvus Griffon Vulture Breeding? Winter visitor.
- 62. Pseudogyps bengalensis White-backed Vulture Straggler from India.
- 63. Neophron percnopterus percnopterus Egyptian Vulture Resident or summer visitor.
- 64. Gypaëtus barbatus aureus Bearded Vulture Resident.
- 65. Circus cyaneus cyaneus Hen Harrier Winter visitor. Passage migrant.
- 66. Circus macrourus Pallid Harrier Passage migrant. Winter visitor.
- 67. Circus pygargus Montagu's Harrier

- 72. Falco juggar Laggar Falcon Breeding SE?
- 73. Falco peregrinus babylonicus Peregrine Falcon Breeding.
- 74. Falco subbuteo subbuteo Hobby Summer visitor. Passage migrant.
- 75. Falco columbarius insignis Merlin Passage migrant. Winter visitor.
- 76. Falco vespertinus subsp.? Red-legged Falcon Passage migrant.
- 77. Falco naumanni naumanni Lesser Kestrel Passage migrant.
- 78. Falco tinnunculus Kestrel tinnunculus Passage migrant. stegmanni Breeding. Passage migrant.

Galliformes

Phasianidae

- 79. Ammoperdix griseogularis Seesee Partridge griseogularis Resident S (and E?)

 peraticus Resident NW (and N?).
- 80. Tetraogallus himalayensis Snowcock

 himalayensis Resident Hindukush, Paghman, (Safed Koh?).

 bendi Resident Bend-i-Turkestan.
- 81. Alectoris graeca Chukor (Rock Partridge)

 koroviakovi Resident S?

 falki Resident central highlands.

 pallescens Resident Wakhan.

 chukar Resident Nuristan.
- 82. Francolinus francolinus bogdanovi Black Partridge Resident S.
- 83. Coturnix coturnix Quail Summer visitor. Passage migrant.
- 84. Lophophorus impejanus Monal Resident Nuristan, Safed Koh.
- 85. Pucrasia macrolopha castanea Koklas Resident Nuristan.
- 86. Phasianus colchicus Pheasant principalis Resident Murghab and Hari Rud valleys

Rallidae

- 90. Rallus aquaticus korejewi Water Rail Status uncertain.
- 91. Crex crex Corncrake
 Status uncertain, possibly summer visitor and passage migrant.
- 92. Porzana parva parva Little Crake Passage migrant.
- 93. Porzana pusilla pusilla Baillon's Crake Breeding? Passage migrant.
- 94. Porzana porzana Spotted Crake Passage migrant.
- 95. Gallinula chloropus indicus Moorhen Breeding. Winter visitor?
- 96. Porphyrio porphyrio seistanicus Purple Coot (Purple Gallinule)
 Resident Seistan. Winter visitor?
- 97. Fulica atra atra Coot Resident. Winter visitor. Passage migrant.

Otidae

- 98. Otis tetrax orientalis Little Bustard Passage migrant. Winter visitor.
- 99. Otis tarda subsp. Great Bustard Winter visitor (Afghan Turkestan).
- 100. Chlamydotis undulata macqueenii Houbara Bustard Breeding? Winter visitor. Passage migrant.

Charadriiformes

Rostratulidae

101. Rostratula benghalensis benghalensis - Painted Snipe Status uncertain. No record from last 100 years.

Haematopodidae

102. Haematopus ostralegus longipes - Oystercatcher Status uncertain. Breeding? Passage migrant?

Charadriidae

- 103. Chettusia leucura White-tailed Lapwing (White-tailed Plover)
 Breeding? Winter visitor. Passage migrant.
- 104. Chettusia gregaria Sociable Lapwing (Sociable Plover)
 Passage migrant.

- 109. Charadrius alexandrinus alexandrinus Kentish Plover Breeding. Passage migrant. Winter visitor.
- 110. Charadrius mongolus (pamirensis) Lesser Sand Plover Passage migrant. Only one record.
- 111. Charadrius leschenaultii Large Sand Plover Status uncertain. (Breeding?)

Scolopacidae

- 112. Numenius arquata arquata Curlew Passage migrant. Winter visitor.
- 113. Limosa limosa Black-tailed Godwit Passage migrant. Winter visitor.
- 114. Tringa totanus subsp. Redshank Breeding? Passage migrant. Winter visitor.
- 115. Tringa stagnatilis Marsh Sandpiper Only two records.
- 116. Tringa nebularia Greenshank Passage migrant. Winter visitor.
- 117. Tringa ochropus Green Sandpiper Passage migrant. Winter visitor.
- 118. Tringa glareola Wood Sandpiper Passage migrant. Winter visitor.
- 119. Tringa hypoleucos Common Sandpiper Summer visitor. Passage migrant. Winter visitor?
- 120. Capella solitaria solitaria Solitary Snipe Scarce winter visitor.
- 121. Capella gallinago gallinago Common Snipe Breeding? Passage migrant. Winter visitor.
- 122. Scolopax rusticola rusticola Woodcock Passage migrant. Winter visitor.
- 123. Lymnocryptes minimus Jack Snipe Passage migrant. Winter visitor.
- 124. Crocethia alba Sanderling Passage migrant.
- 125. Calidris minuta Little Stint Passage migrant.
- 126. Calidris temminckii Temminck's Stint Passage migrant.
- 127. Calidris alpina alpina Dunlin

Phalaropodidae

131. Phalaropus lobatus - Red-necked Phalarope Passage migrant.

Burhinidae

132. Burhinus oedicnemus astutus – Stone Plover Breeding (resident?).

Glareolidae

- 133. Cursorius cursor (cursor) Cream-coloured Courser Breeding. Passage migrant. Winter visitor.
- 134. Glareola glareola glareola Collared Pratincole One record. Status uncertain.
- 135. Glareola lactea Small Indian Pratincole One record. Status uncertain.

Laridae

- 136. Larus argentatus Herring Gull cachinnans (?) Breeding ? Scarce passage migrant. heuglini (?) Passage migrant.
- 137. Larus ichthyaëtus Great Black-headed Gull Passage migrant.
- 138. Larus ridibundus Black-headed Gull Passage migrant. Winter visitor.
- 139. Larus genei Slender-billed Gull Breeding. Passage migrant.
- 140. Chlidonias hybrida indica Whiskered Tern Two records only. Status uncertain.
- 141. Gelochelidon nilotica nilotica Gull-billed Tern Summer visitor. Passage migrant.
- 142. Hydroprogne tschegrava tschegrava Caspian Tern Breeding?
- 143. Sterna hirundo hirundo Common Tern Summer visitor.
- 144. Sterna albifrons albifrons Little Tern Summer visitor. Passage migrant?

Columbiformes

Pteroclididae

145. Pterocles alchata caudacutus - Large Pin-tailed Sandgrouse

Columbidae

- 149. Columba leuconota leuconota Snow Pigeon Resident NE.
- 150. Columba rupestris turkestanica -- Hill Pigeon Breeding NE.
- 151. Columba livia Rock Pigeon gaddi Resident, except Nuristan neglecta Resident Nuristan.
- 152. Columba oenas (subsp.?) Stock Dove Rare winter visitor.
- 153. Columba eversmanni Eastern Stock Dove Breeding N and W.
- 154. Columba palumbus casiotis Wood Pigeon Breeding.
- 155. Streptopelia turtur arenicola Common Turtle Dove Summer visitor. Passage migrant.
- 156. Streptopelia orientalis meena Eastern Turtle Dove Summer visitor. Passage migrant.
- 157. Streptopelia decaocto decaocto Indian Ring Dove (Collared Turtle Dove)
 Summer visitor.
- 158. Streptopelia tranquebarica tranquebarica Red Turtle Dove Status uncertain. Single sight record (Jalalabad).
- 159. Streptopelia chinensis suratensis Spotted Dove Status uncertain. Only sight records.
- 160. Streptopelia senegalensis Little Brown Dove (Laughing Dove)

 cambayensis Resident or summer visitor S

 ermanni Resident or summer visitor N.

Psittaciformes

Psittacidae

161. Psittacula himalayana himalayana - Slaty-headed Parakeet Summer visitor Nuristan.

Cuculiformes

Cuculidae

162. Cuculus canorus - Cuckoo canorus - Summer visitor NE. subtelephonus - Summer visitor. Passage migrant.

Strigiformes

مناه فيدفيه

- 167. Strix aluco biddulphi Wood Owl (Tawny Owl)
 Resident NE, E.
- 168. Asio otus otus Long-eared Owl Scarce winter visitor and passage migrant.
- 169. Asio flammeus flammeus Short-eared Owl Scarce winter visitor and passage migrant.

Caprimulgiformes

Caprimulgidae

- 170. Caprimulgus europaeus European Nightjar unwini Summer visitor. Passage migrant. plumipes Scarce passage migrant (?).
- 171. Caprimulgus aegyptius aegyptius Egyptian Nightjar Summer visitor SW, W.
- 172. Caprimulgus mahrattensis Syke's Nightjar Summer visitor.
- 173. Caprimulgus asiaticus asiaticus Indian Nightjar Straggler? One record.

Apodiformes

Apodidae

- 174. Apus melba tuneti Alpine Swift Summer visitor. Passage migrant.
- 175. Apus apus pekinensis Common Swift Summer visitor. Passage migrant.
- 176. Apus affinis galilejensis Indian Swift (White-rumped Swift) Summer visitor. Passage migrant.

Coraciiformes

Alcedinidae

- 177. Ceryle rudis leucomelanura Pied Kingfisher Breeding S, NE.
- 178. Alcedo atthis pallasii Common Kingfisher Resident. Summer visitor.
- 179. Halcyon smyrnensis smyrnensis White-breasted Kingfisher Resident NE? Two records.

Meropidae

100 M Common De

Upupidae

184. Upupa epops – Hoopoe

epops – Summer visitor (partially resident?). Passage migrant.

orientalis – Summer visitor Nuristan.

Piciformes

Picidae

- 185. Jynx torquilla torquilla Wryneck Passage migrant.
- 186. Picus squamatus Scaly-bellied Green Woodpecker flavirostris Resident S, W. squamatus Resident E.
- 187. Dendrocopos leucopterus leptorhynchus White-winged Pied Woodpecker
 Resident N.
- 188. Dendrocopos himalayensis albescens Himalayan Pied Woodpecker Resident E.
- 189. Dendrocopos auriceps Brown-fronted Pied Woodpecker Resident Nuristan.

Passeriformes

Alaudidae

- 190. Ammomanes deserti Desert Finch Lark (Desert Lark)
 iranica Resident SW, W.
 orientalis Resident N.
 phoenicuroides Resident E.
- 191. Alaemon alaudipes doriae Desert Lark (Bifasciated Lark)
 Resident S.
- 192. Calandrella rufescens Lesser Short-toed Lark persica? Breeding E. heinei Passage migrant and/or winter visitor.
- 193. Calandrella cinerea Short-toed Lark

 artemisiana Status uncertain (breeding? SW).

 longipennis Summer visitor. Passage migrant.
- 194. Calandrella acutirostris acutirostris Hume's Short-toed Lark Summer visitor.
- 195. Melanocorypha bimaculata torquata Eastern Calandra Lark Breeding N. Passage migrant. Winter visitor.
- 196. Melanocorypha calandra psammochroa Calandra Lark Resident N.
- ton n tit to til til til til and toole

Hirundidae

- 201. Riparia riparia Sand Martin
 diluta Summer visitor. Passage migrant.
 riparia (sive ijimae) Passage migrant.
- 202. Riparia paludicola chinensis Indian Sand Martin (Grey-breasted Sand Martin)

Summer visitor (one record).

- 203. Hirundo rupestris Crag Martin Summer visitor.
- 204. Hirundo obsoleta pallida Pale Crag Martin Breeding S? (2 or 3 records).
- 205. Hirundo rustica rustica Common Swallow Summer visitor. Passage migrant.
- 206. Hirundo smithii filifera Wire-tailed Swallow Summer visitor.
- 207. Hirundo fluvicola Indian Cliff Swallow Summer visitor (one record).
- 208. Hirundo daurica rufula Red-rumped Swallow Summer visitor.
- 209. Delichon urbica urbica House Martin Summer visitor. Passage migrant.

Motacillidae

- 210. Anthus richardi waitei Indian Pipit (Richard's Pipit) Summer visitor (?) S.
- 211. Anthus campestris Tawny Pipit
 campestris Passage migrant.
 griseus Summer visitor. Passage migrant. Winter visitor.
- 212. Anthus similis Brown Rock Pipit decaptus Summer visitor SE. jerdoni Summer visitor E.
- 213. Anthus trivialis Tree Pipit
 sibiricus Passage migrant. Winter visitor?
 schlüteri Passage migrant. Winter visitor. Breeding?
 haringtoni Status uncertain (two records).
- 214. Anthus cervinus Red-throated Pipit Passage migrant.
- 215. Anthus roseatus Hodgson's Pipit Status uncertain (one record).

- 219. Motacilla citreola Yellow-headed Wagtail calcarata Summer visitor. Passage migrant. citreola Passage migrant. werae Passage migrant.
- 220. Motacilla cinerea cinerea Grey Wagtail Summer visitor. Passage migrant. Winter visitor.
- 221. Motacilla alba White Wagtail

 personata Summer visitor. Passage migrant. Winter visitor.

 dukhunensis Passage migrant, Winter visitor.

Campephagidae

222. Pericrocotus brevirostris brevirostris - Short-billed Minivet Summer visitor E.

Pycnonotidae

- 223. Microscelis psaroides psaroides Black Bulbul
 Status uncertain. Presumably summer visitor (one record Kunar Valley).
- 224. Pycnonotus leucotis leucotis White-eared Bulbul Resident S.
- 225. Pycnonotus leucogenys White-cheeked Bulbul Resident E.

Laniidae

- 226. Lanius collurio Red-backed Shrike

 phoenicuroides (Rufous Shrike) Summer visitor. Passage migrant.

 isabellina (Isabelline Shrike) Winter visitor. Passage migrant.
- 227. Lanius vittatus nargianus Bay-backed Shrike Summer visitor.
- 228. Lanius senator niloticus Woodchat Shrike One record. Status uncertain.
- 229. Lanius schach erythronotus Rufous-backed Shrike Summer visitor. Passage migrant.
- 230. Lanius minor turanicus Lesser Grey Shrike Summer visitor.
- 231. Lanius excubitor Great Grey Shrike

 aucheri One record NW, presumably breeding.

 pallidirostis Winter visitor.

Bombycillidae

232. Hypocolius ampelinus – Grey Hypocolius Few records. Status uncertain. Probably breeding S.

Cinclidae

Prunellidae

- 236. Prunella collaris rufilata Alpine Accentor Resident E.
- 237. Prunella himalayana Himalayan Accentor Resident Badakhshan.
- 238. Prunella strophiata jerdoni Jerdon's Accentor (Rufous-breasted Hedge Sparrow)

Resident E.

- 239. Prunella atrogularis Black-throated Accentor atrogularis Winter visitor.

 huttoni Winter visitor.
- 240. Prunella fulvescens fulvescens Brown Accentor Breeding. (? Resident).

Turdidae

- 241. Luscinia megarhynchos hafizi Nightingale Summer visitor.
- 242. Luscinia svecica Bluethroat
 svecica Passage migrant.
 pallidogularis Passage migrant.
 saturatior Passage migrant.
 kobdensis Passage migrant.
 abbotti Summer visitor.
- 243. Luscinia brunnea brunnea Indian Bluechat Summer visitor Nuristan.
- 244. Luscinia pectoralis ballioni Himalayan Rubythroat Summer visitor Nuristan.
- 245. Irania gutturalis Persian Robin (White-throated Robin)
 Summer visitor. Passage migrant.
- 246. Phoenicurus ochruros phoenicuroides Black Redstart Summer visitor. Passage migrant. Winter visitor.
- 247. Phoenicurus frontalis Blue-fronted Redstart Status uncertain. Presumably summer visitor Nuristan.
- 248. Phoenicurus erythrogaster grandis Güldenstädt's Redstart Passage migrant.
- 249. Phoenicurus erythronotus Eversmann's Redstart Passage migrant. Winter visitor.
- 250. Phoenicurus coeruleocephalus Blue-headed Redstart Summer visitor E.

- 255. Monticola cinclorhynchus Blue-headed Rock Thrush Summer visitor E.
- 256. Saxicola torquata maura Stonechat
 Summer visitor. Passage migrant. Winter visitor.
- 257. Saxicola caprata rossorum Pied Bush Chat Summer visitor. Passage migrant. Winter visitor?
- 258. Saxicola macrorhyncha Stoliczka's Whinchat Status uncertain (one record).
- 259. Saxicoloides fulicata subsp. Indian Robin Status uncertain. One record.
- 260. Cercotrichas galactotes familiaris Grey-backed Warbler (Rufous Warbler)

Summer visitor. Passage migrant.

- 261. Oenanthe xanthoprymna chrysopygia Red-tailed Chat Summer visitor. Passage migrant. Winter visitor.
- 262. Oenanthe oenanthe oenanthe Common Wheatear Summer visitor. Passage migrant.
- 263. Oenanthe pleschanka pleschanka Siberian Chat (Pied Wheatear) Summer visitor. Passage migrant.
- 264. Oenanthe picata Pied Chat Summer visitor. Passage migrant. Winter visitor?
- 265. Oenanthe finschii barnesi Barne's Chat Summer visitor. Passage migrant.
- 266. Oenanthe deserti Desert Chat

 atrogularis Passage migrant. Winter visitor.

 oreophila Summer visitor (intermediates). Passage migrant.

 Winter visitor.
- 267. Oenanthe isabellina Isabelline Chat Resident. Summer visitor. Passage migrant.
- 268. Oenanthe alboniger Hume's Chat Status uncertain, presumably resident S.
- 269. Turdus merula intermedius Blackbird. Breeding (resident?). Winter visitor.
- 270. Turdus ruficollis
 ruficollis (Red-throated Thrush) Rare passage migrant or winter
 visitor (one record).

atrogularis (Black-throated Thrush) - Passage migrant. Winter visitor.

271. Turdus viscivorus bonapartei – Missel Thrush Breeding (summer visitor?).

M is the second transfer of Disco Whistling Thrush

- 276. Garrulax lineatus Streaked Laughing Thrush gilgit Summer visitor Nuristan.

 bilkevitchi Summer visitor Badakhshan.
- 277. Garrulax variegatus nuristani Variegated Laughing Thrush Summer visitor Nuristan.

Sylviidae

- 278. Phylloscopus collybita Chiffchaff
 tristis Passage migrant.
 fulvescens Passage migrant.
 sindianus Status uncertain (two records).
- 279. Phylloscopus neglectus Plain Brown Willow Warbler Breeding W, NE.
- 280. Phylloscopus tytleri Tytler's Willow Warbler Summer visitor Nuristan.
- 281. Phylloscopus griseolus Olivaceous Willow Warbler Summer visitor E, NE.
- 282. Phylloscopus schwarzi Radde's Bush Warbler Vagrant (one record).
- 283. Phylloscopus inornatus humei Hume's Willow Warbler (Yellow-browed Willow Warbler)

Summer visitor Badakhshan. Passage migrant.

- 284. Phylloscopus subviridis Brook's Willow Warbler Summer visitor E.
- 285. Phylloscopus trochiloides Greenish Willow Warbler ludlowi Summer visitor Badakhshan.

 viridanus Passage migrant.
- 286. Phylloscopus nitidus Green Willow Warbler Summer visitor W. Passage migrant.
- 287. Phylloscopus occipitalis Large Crowned Willow Warbler Summer visitor E.
- 288. Regulus regulus Goldcrest

 himalayensis Breeding Nuristan.

 tristis Winter visitor.
- 289. Cettia cetti albiventris Cetti's Bush Warbler Summer visitor. Passage migrant. Winter visitor?
- 290. Lusciniola melanopogon mimica Moustached Sedge Warbler Status uncertain. (Summer visitor? Passage migrant).
- 291. Locustella naevia Grashopper Warbler straminea Passage migrant.

- 295. Acrocephalus scirpaceus fuscus Reed Warbler Summer visitor (one record).
- 296. Acrocephalus dumetorum Blyth's Reed Warbler Summer visitor. Passage migrant.
- 297. Acrocephalus agricola Paddy-Field Warbler Summer visitor? Passage migrant.
- 298. Acrocephalus concinens harringtoni Harrington's Reed Warbler Summer visitor N.
- 299. Hippolais languida Upcher's Warbler Summer visitor.
- 300. Hippolais pallida elæica Olivaceous Warbler Summer visitor.
- 301. Hippolais caligata Sykes's Tree Wabler (Booted Warbler) caligata Passage migrant.

 rama Summer visitor, Passage migrant.
- 302. Sylvia nisoria merzbacheri Barred Warbler Status uncertain (three records).
- 303. Sylvia hortensis jerdoni Orphean Warbler Summer visitor. Passage migrant.
- 304. Sylvia communis icterops Whitethroat Passage migrant.
- 305. Sylvia curruca Lesser Whitethroat blythi Passage migrant.

 halimodendri Passage migrant.
- 306. Sylvia minula subsp. Small Whitethroat Passage migrant.
- 307. Sylvia althaea althaea Hume's Whitethroat Summer visitor.
- 308. Sylvia nana nana Desert Warbler Passage migrant.
- 309. Sylvia mystacea Ménétries's Warbler Summer visitor. Passage migrant.
- 310. Scotocerca inquieta Streaked Scrub Warbler platyura Resident N, E. stiata Resident S.
- 311. Prinia gracilis lepida Streaked Wren Warbler (Graceful Wren Warbler). Resident S
- 312. Prinia crinigera striatula Brown Hill Warbler Status uncertain (one record), presumably breeding Nuristan.

- 316. Muscicapa sibirica gulmergi Sooty Flycatcher Summer visitor E.
- 317. Muscicapa ruficauda Red-tailed Flycatcher Summer visitor E.
- 318. Terpsiphone paradisi leucogaster Paradise Flycatcher Summer visitor.

Paridae

- 319. Parus cyanus flavipectus Azure Tit Resident N.
- 320. Parus major Grey Tit (Great Tit)
 caschmirensis Resident Nuristan.
 decolorans Resident E.
 ziaratensis Resident SE, W.
 bokharensis Resident N.
 ferghanensis Resident Badakhshan.
- 321. Parus rubidiventris rufonuchalis Black Tit Resident E, NW.
- 322. Parus melanolophus Crested Black Tit Resident E.

Aegithalidae

323. Aegithalos leucogenys - White-cheeked Tit Resident Nuristan.

Remizidae

324. Remiz pendulinus – Penduline Tit
caspius – Passage migrant. Winter visitor?
coronatus – Breeding Badakhshan. Passage migrant.

Sittidae

- 325. Sitta europaea cashmirensis Brook's Nuthatch (European Nuthatch) Resident E.
- 326. Sitta leucopsis leucopsis White-cheeked Nuthatch Resident E.
- 327. Sitta tephronota tephronota Rock Nuthatch Resident.
- 328. Tichodroma muraria nepalensis Wall Creeper Resident.

Certhiidae

329. Certhia himalayana - Himalayan Tree Creeper

Emberizidae

- 332. Emberiza calandra buturlini Corn Bunting Breeding N. (Resident?).
- 333. Emberiza leucocephala leucocephala Pine Bunting Winter visitor. Passage migrant.
- 334. Emberiza melanocephala Black-headed Bunting Straggler (one record).
- 335. Emberiza bruniceps Red-headed Bunting Summer visitor. Passage migrant.
- 336. Emberiza stewarti White-capped Bunting Summer visitor.
- 337. Emberiza hortulana Ortolan Bunting Status uncertain (W).
- 338. Emberiza buchanani buchanani Grey-necked Bunting Summer visitor. Passage migrant.
- 339. Emberiza cia par Meadow Bunting (Rock Bunting)
 Summer visitor E. Passage migrant?
- 340. Emberiza fucata arcuata Grey-headed Bunting Status uncertain (one record).
- 341. Emberiza schoeniclus Reed Bunting pallidior Winter visitor.

 (pyrrhuloides) Winter visitor.

Fringillidae

- 342. Fringilla coelebs coelebs Chaffinch Winter visitor NW.
- 343. Fringilla montifringilla Brambling Winter visitor.
- 344. Serinus pusillus Gold-fronted Finch (Gold-fronted Serin) Resident.
- 345. Chloris chloris turkestanicus Greenfinch One record N, presumably winter visitor.
- 346. Carduelis carduelis Goldfinch

 paropanisi Resident. Winter visitor.

 subulata Winter visitor or straggler (one record).
- 347. Carduelis flavirostris korejewi Twite Resident.
- 348. Carduelis cannabina bella Linnet

- 353. Rhodopechys githaginea crassirostris Trumpeter Bullfinch Resident.
- 354. Rhodopechys obsoleta Lichtenstein's Desert Finch Resident.
- 355. Carpodacus erythrinus ferghanensis Common Rosefinch Summer visitor, Passage migrant.
- 356. Carpodacus synoicus salimalii Sinai Rosefinch Resident Central.
- 357. Carpodacus rhodochlamys grandis Red-mantled Rosefinch Resident E, NW.
- 358. Carpodacus rubicilla diabolica Great Rosefinch (Caucasian Rosefinch) Resident NE.
- 359. Mycerobas carnipes speculigerus White-winged Grosbeak Resident.
- 360. Mycerobas icterioides Black-and-Yellow Grosbeak One record E, presumably resident.
- 361. Coccothraustes coccothraustes humii Hawfinch Breeding W. (Resident?)

Ploceidae

- 362. Petronia petronia intermedia Rock Sparrow Resident.
- 363. Petronia xanthocollis xanthocollis Yellow-throated Sparrow Breeding (summer visitor?).
- 364. Passer domesticus House Sparrow

 persicus Status uncertain (one record). Passage migrant?

 persicus ≥ indicus Summer visitor SW.

 bactrianus Summer visitor. Passage migrant.
- 365. Passer hispaniolensis transcaspicus Spanish Sparrow Summer visitor. Passage migrant.
- 366. Passer montanus dilutus Tree Sparrow Resident.
- 367. Passer rutilans cinnamomeus Cinnamon Sparrow Status uncertain (one record).
- 368. Passer moabiticus yatii Yate's Sparrow (Dead Sea Sparrow) Resident Seistan.
- 369. Montifringilla nivalis alpicola Snow Finch Resident.
- 370. Montifringilla theresae Theresa's Snow Finch Resident Central.

- 374. Sturnus tristis Common Myna (Indian Myna)
 Summer visitor, partly resident.
- 375. Sturnus ginginianus Bank Myna Straggler (one record).

Oriolidae

376. Oriolus oriolus kundoo - Golden Oriole Summer visitor.

Dicruridae

- 377. Dicrurus macrocercus albirictus King Crow Summer visitor E.
- 378. Dicrurus leucophaeus longicaudatus Ashy Drongo Summer visitor E.

Corvidae

- 379. Pyrrhocorax pyrrhocorax docilis Red-billed Chough Resident.
- 380. Pyrrhocorax graculus digitatus Alpine Chough Resident E.
- 381. Garrulus lanceolatus Lanceolated Jay (Black-throated Jay) Resident Nuristan.
- 382. Pica pica bactriana Magpie Resident.
- 383. Nucifraga caryocatactes multipunctata Nutcracker Resident E.
- 384. Corvus monedula soemeringii Jackdaw Breeding (resident?) N. Winter visitor.
- 385. Corvus frugilegus frugilegus Rook Winter visitor.
- 386. Corvus macrorhynchos intermedius Jungle Crow (Large-billed Crow) Resident E.
- 387. Corvus corone Crow orientalis (Carrion Crow) Breeding. Winter visitor. sharpii (Hooded Crow) Breeding. Winter visitor.
- 388. Corvus ruficollis Brown-necked Raven Resident NW, (S?).
- 389. Corvus corax subcorax Raven Resident.

VI. Composition and affinities of the bird fauna

The preceding list of Afghan birds may be subject to criticism and as our knowledge of the bird fauna of the country improves many alterations and additions may be required but even in its imperfect state it enables one to analyze with a fair degree of precision the zoogeographical nature of the fauna.

With the reservations already made an analysis of the list shows that among the 389 species recorded from Afghanistan 231 may be assumed to breed in the country.

Afghanistan as well as Baluchistan belongs to the Palearctic Region which is bounded in the east, and separated from the Oriental Region, by the Sulaiman Mountains, the barrier between the Iranian Plateau and the Indus Valley. It is, therefore, quite natural that the bulk of the Afghan bird fauna is of Palearctic origin. However, since the country forms a border province between the two regions and since also the Palearctic Region is inhabited by several faunal elements a more detailed analysis may be appropriate. In order to achieve this it is necessary to decompose the fauna into certain groups, a process which involves many a compromise; hence it is possible that others will be in favour of other possibilities for grouping the fauna than the one I have arrived at. On the other hand it is hoped that the framework provided here may facilitate a general survey of the fauna and its composition.

A: Among the breeding birds are 36 species which are cosmopolitan or at least widely distributed in the Palearctic Region as well as in India. They contribute nothing in the way of clarifying the zoogeographical position of Afghanistan.

B: Otherwise with a group of 132 species which are exclusively palearctic or widely distributed in this region but absent in India – except that a few steppe and desert birds extend their area into Sind and that some other species occur in Kashmir which in many respects show more Palearctic than Indian traits.

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 Bb_1 : The following list of 26 Afghan breeding birds comprises the typical representatives of the fauna associated with steppe and desert habitats:

Buteo rufinus
Ammoperdix griseogularis
Cursorius cursor
Pterocles alchata
Pterocles orientalis
Pterocles coronatus
Caprimulgus aegyptius
Ammomanes deserti
Alaemon alaudipes
Calandrella rufescens
Calandrella cinerea
Melanocorypha bimaculata
Melanocorypha calandra

Oenanthe xanthoprymna
Oenanthe pleschanka
Oenanthe picata
Oenanthe finschii
Oenanthe deserti
Oenanthe isabellina
Scotocerca inquieta
Rhodopechys sanguinea
Rhodopechys mongolica
Rhodopechys githaginea
Rhodopechys obsoleta
Carpodacus synoicus
Corvus ruficollis

Three of the species mentioned, Cursorius cursor, Ammomanes deserti, and Calandrella cinera, also occur in steppe and desert areas in Africa outside the Sahara while all the other species are restricted to the Palearctic Region, although a few penetrate into Sind. Several among them are distributed throughout the arid belt from N Africa to NW China while others reach their northern limit in Afghanistan or southern Turkestan.

Some species have a very limited distribution, thus the distribution of Ammoperdix griseogularis, Oenanthe xanthoprymna and Oenanthe picata almost coincides with the Iranian Plateau.

 Bb_2 : A group may be formed by bringing together all the Mediterranean species associated with lakes and water courses, scrub and rocky country; in this context the term Mediterranean should not be taken too literally since some of the species extend even to N China through the south Palearctic arid belt while others reach their northern limit in Turkestan, such as Cercotrichas galactotes, the only species among those mentioned which also occur in the Ethiopian Region. With the inevitable compromises created by any grouping my list will be seen to comprise 20 species:

Anas angustirostris

Phylloscopus nitidus

Among the species listed five have a very restricted distribution: Irania gutturalis, Hippolais languida, and Sylvia mystacea occur from Palestine to Turkestan, Phylloscopus nitidus from the Caucasus to Afghanistan and the southernmost provinces of Turkestan and, finally, Passer moabiticus which shows a patchy distribution centering on Palestine, Iraq, and Seistan.

 Bb_3 : From among the species associated with the south palearctic arid zone a third, small, group may be formed by bringing together five species largely confined to Turkestan:

Columba eversmanni Dendrocopos leucopterus Phylloscopus neglectus

Sylvia althaea Emberiza bruniceps

The two species mentioned first extend their area south to N. Afghanistan, and the three last mentioned to Baluchistan.

Bc: A number of species occur in the high mountains of Afghanistan and some of them may have the breeding area in common with those steppe species which penetrate highest up the mountains, but on the other hand they differ from the latter category of species by being restricted to fairly high altitudes; thus in Nuristan, where a forest zone occurs, most of them live above the forest zone, only touching its upper fringe. Calandrella acutirostris is an exception in so far that I found it in the wide valleys down to 2000 m. in the eastern as well as the western provinces although ordinarily the species is restricted to fairly high altitudes during the breeding period.

Owing to their habitat in Afghanistan these species must be characterized as alpine although in other parts of their area of distribution some of them occur at much lower altitude, thus *Pyrrhocorax pyrrhocorax* occurs even along rocky shores in West Europe. To this group I refer 22 species, as follows:

Gypaëtus barbatus
Tetraogallus himalayensis
Columba leuconota
Columba rupestris
Calandrella acutirostris

Serinus pusillus
Carduelis flavirostris
Leucosticte nemoricola
Leucosticte brandti
Carpodacus rhodochlamys

particular. Among them *Montifringilla theresae* is endemic in Afghanistan. No less than 10 species have their western limit in Afghanistan while others extend farther west, along the mountain ranges; *Mycerobas carnipes* to N Iran; *Carpodacus rubicilla* to the Caucasus; *Tetraogallus himalayensis* and *Serinus pusillus* to Asia Minor; the same applies to *Carduelis flavirostris* if one disregards its isolated occurrence in NW Europe which may have been continuous with the Asian area of distribution through the South and Central European mountain ranges (STRESEMANN 1920). The following species extend their area into Europe: *Prunella collaris*, *Tichodroma muraria*, *Montifringilla nivalis*, *Pyrrhocorax pyrrhocorax* and *Pyrrhocorax graculus*; finally the area of *Gypaëtus barbatus* extends even to the South African mountains, a fact which places the species somewhat differently from the others and probably with a history of its own.

It may cause wonder that *Eremophila alpestris* has not been included in the above list where one might expect to find it but owing to its wide holarctic distribution it has already been included in a previous group (Ba).

C: The Himalayan species contribute a characteristic element of the Afghan bird fauna; by and large they have only penetrated into the eastern, wooded, provinces which form a direct continuation of the forest zone covering the south facing slope of the Himalayas which again, in the east, link up with the forests of SW China but are separated from India by the vast plains surrounding the rivers Indus and Ganges. According to MEINERTZHAGEN (1928) who analyzed the zoogeographical position of this forest area 13 endemic genera of birds occur here whilst 64 genera are shared with SW China but absent in India and in the Palearctic Region outside China; only 20 non-Palearctic genera occur also in SW China as well as in India. This shows partly that the fauna must have enjoyed a long and independent development and partly that it is much closer related to the South Chinese Province of the Oriental Region than to India. Several among the species listed below exemplify very clearly the connection with SW China from where their distribution extends as a narrow belt west along the southern slope of the Himalayas to Afghanistan.

Garrulax variegatus
Phylloscopus tytleri
Phylloscopus subviridis
Acrocephalus concinens
Ficedula superciliaris
Muscicapa sibirica
Parus melanolophus
Aegithalos leucogenys
Sitta leucopsis
Garrulus lanceolatus

Picus squamatus
Luscinia pectoralis
Phoenicurus coeruleocephalus
Garrulax lineatus
Phylloscopus occipitalis
Muscicapa ruficauda
Parus rubidiventris
Certhia himalayana
Emberiza stewarti

The first 18 species do not penetrate farther west than to Afghanistan while the last 9 species also occur in Turkestan.

Phylloscopus subviridis is endemic in the small area from E Afghanistan to Gilgit and Hazara.

Cb: The following 6 species are associated with water courses, and just like the preceding group they belong to the Himalayan fauna and do not occur in Peninsular India:

Cinclus pallasii Chaimarrornis leucocephalus Myiophoneus caeruleus Enicurus scouleri Rhyacornis fuliginosus Enicurus maculatus

The first four extend to Turkestan but the two last not beyond Nuristan.

D: Phasianus colchicus seems to be a special case but it is natural to mention it in connection with the Himalayan birds; like so many of these it has apparently spread from the Chinese Subregion. The Chinese and Afghan areas of distribution are, however, not connected through the Himalayas but through a chain of subspecies distributed from China north of Tibet and westwards through Turkestan to the south coast of the Black Sea, and perhaps even to Bulgaria.

E: Finally a group of 20 species occur in Peninsular India (and a few of them also in the Himalayas) from where their area of distribution extends a little into the Palearctic Region. Furthermore, some of the species also occur in the Ethiopian Region but the two centres are not continuous through South Palearctic. This group comprises:

The first seven species do not extend NW beyond Afghanistan, the others extend to Turkestan or Iraq and Francolinus francolinus even to Cyprus.

E: The last group to be made comprises a number of species occurring in India and Ethiopia, the distribution in the two regions being continuous through South Palearctis. Among the Afghan birds 9 species belong in this category:

Neophron percnopterus
Porphyrio porphyrio
Streptopelia senegalensis
Apus affinis
Ceryle rudis

Merops superciliosus
Anthus similis
Acrocephalus stentoreus
Prinia gracilis

As a summary of the present investigation it must be concluded that Afghanistan is part of the Palearctic Region since among 231 breeding species 173 (72 per cent) are exclusively Palearctic or at least species which breed extensively in this region. Among these species only 36 (15 per cent) also breed in Peninsular India. Another group of 34 species (15 per cent) belong in the south Chinese faunal element or are endemic in the Himalayas. A group of 20 species (9 per cent) possesses a breeding area comprising Peninsular India and extending westwards to comprise Afghanistan. A final group of 9 species comprises Indian-Ethiopian species occurring throughout the southern Palearctic Region.

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